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ABSTRACT

The publication on the integration of content area and second language instruction, focusing on the situation in Finland, consists of nine essays and a bibliography. The essays include: "Education in a Second or Foreign Language. An Overview" (Kaj Sjoholm); "Foreign Language Content Teaching in Teacher Education at Abo Akademi University" (Kaj Sjoholm); "The English Department at the Primary Level of Vasa Ovningsskola" (Anna-Brita Slotte); "Reflections on Teaching Content through English at the Lower Secondary Level of Vasa Ovningsskola" (Gun Jakobsson); "The International Baccalaureate Section at Vasa Ovningsskola" (Solveig Jungner); "Fairy Tales as Tools To Improve Vocabulary? A Vocabulary Test with 6-8 Year-Olds Within a TCE Programme" (Mikaela Bjorklund, Anna-Brita Slotte); "Science Teaching Through English" (Ole Bjorkqvist); "Teaching Physical Education Through a Foreign Language" (Thomas Friman, Jan-Erik Romar); "Place-Based Learning in Content-Based Language Programs" (Gregory Martin Imbur); and "Select Bibliography on Bilingual Education and Related Matters" (Mikaela Bjorklund, Kaj Sjoholm). (Contains 43 pages of references.) (MSE)

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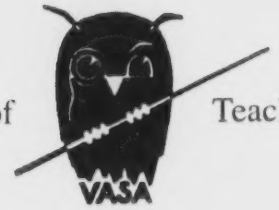
Department of  Teacher Education

Content and Language Integrated Learning

Teachers´ and Teacher Educators´ Experiences of English Medium Teaching

Kaj Sjöholm & Mikaela Björklund
(Eds.)

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Content and Language Integrated Learning. Teachers' and Teacher Educators' Experiences of English Medium Teaching.
166 p.

Abstract

The main aim of this report is to provide practising teachers and student teachers with an introduction to content and language integrated learning. The volume contains nine papers, including theoretical aspects of bilingual education, an overview of the training offered in Finland and in particular at the Department of Teacher Education at Åbo Akademi University in this field, presentations of the content-based programmes presently practised at the different levels of Vasa övningsskola, and also some teachers' and teacher educators' experiences of content-based language teaching. The report also contains a bibliography suggesting relevant readings on bilingual education and related matters, such as portfolio assessment and action research.

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Ämnesintegrerad språkundervisning. Lärares och lärarutbildares erfarenheter av att undervisa på engelska.
166 s.

Abstrakt

Syftet med denna rapport är att förse praktiserande lärare och lärarstuderande med en introduktion till ämnesintegrerad språkundervisning. Volymen omfattar nio artiklar, som beskriver teoretiska aspekter av "tvåspråkig utbildning", den utbildning som ges inom detta område i Finland och vid institutionen för lärarutbildning vid Åbo Akademi, de ämnesbaserade språkprogram som genomförs på de olika stadierna vid Vasa övningsskola, samt några lärares och lärarutbildares erfarenheter av och reflektioner kring ämnesbaserad språkundervisning. Publikationen innehåller också en bibliografi med förslag till relevant litteratur beträffande språkbad, ämnesbaserad språkundervisning och ämnen som anknyter till dessa, t.ex. portfolio utvärdering och aktionsforskning.

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Introduction

The strong urge to include internationalization in the curriculum at all levels in the early nineties, brought about a change in Finnish school legislation. The new school law made it possible to teach subject matter in a second or foreign language. E.g. Vasa övningsskola started as early as 1991 different English medium programmes at the comprehensive school level. This made the need for teacher education in bilingual education and content-based language teaching but too apparent. Therefore the Department of Teacher Education at Åbo Akademi University has provided pre-service courses in content-based language teaching since 1995 and in-service education and research in the field has recently started.

This report is but a small step towards the development of research-driven information about content and language integrated learning in the Åbo Akademi context. The report is mainly intended for student teachers and practising teachers as an introduction to content-based language teaching. The report is divided into three parts.

The first part, called *Bilingual education in theory and practice,* provides the reader with an overview of the theoretical justification for bilingual education and content-based language teaching, presents the development of the optional courses in content-based language teaching offered at the Department of Teacher Education, and finally,

describes the English medium programmes developed at Vasa övningsskola.

Part one starts with two articles by Kaj Sjöholm. In the first article he attempts to give an overview of the major features of bilingual education or content-based language instruction and presents the theoretical justification for introducing these kind of programmes. In the second article, Sjöholm provides the reader with a brief overview of the development of English medium content teaching in teacher education at Åbo Akademi University. In the next article, Anna-Brita Slotte presents the central characteristics of the English Department, i.e. the English section of the primary level of Vasa övningsskola. Her article is followed by another one written by Gun Jakobsson, who reflects on her own experiences of teaching content (biology and geography) through English at the lower secondary level of Vasa övningsskola. Part one is completed by a presentation of the International Baccalaureate programme by Solveig Jungner. Her presentation includes general objectives, curriculum, examination, experiences and visions for the future.

The second part is called *Some experiences of English content instruction* and includes practical experiences and theoretical reflections of English medium instruction at Vasa Övningsskola and the Department of Teacher Education. The article written by Mikaela Björklund and Anna-Brita Slotte suggests that the fairy tale may be a useful instrument for vocabulary acquisition among young learners. Ole Björkqvist discusses differences in traditions of science in Finland and Anglo-American countries, and what consequences the constructivist view of learning has for science teaching. He also argues for the use of appropriate language tools in science teaching and exemplifies what kind of vocabulary students will develop. In the next paper, Thomas Friman and Jan-Erik Romar present a practical report on a small experiment of content-based teaching in physical education. Friman and Romar describe their practical experiences and what the implications are for teachers wishing to be engaged in teaching physical education through a foreign language. The final paper is written by Gregory Martin Imbur, who presents place-based teaching from a historical point of view. Based on his own

experiences as a teacher, he also draws some conclusions about what the teacher and learner role may be within a content-based programme and presents some relevant themes fit to be used in place-based teaching.

The third part consists of a bibliography compiled by Mikaela Björklund and Kaj Sjöholm. The bibliography comprises relevant readings on bilingual education (including immersion and content-based approaches), methods of assessment and language testing, research methods in the language classroom and different kinds of materials, ideas and methods in language teaching.

Vasa, 3 March 1999

Kaj Sjöholm *Mikaela Björklund*

Part I

Bilingual education in theory and practice

Education in a second or foreign language
An overview

Kaj Sjöholm

1. Introduction

This article is concerned with education in a second or foreign language or as it has also been called bilingual education. The term 'bilingual education' has been used in a variety of different contexts. Here it has been used in its broadest sense referring to teaching content matter through a second or foreign language in a bilingual programme, regardless of its form, pedagogical approach, proportion of teaching done in the mother tongue (Räsänen, 1994, p. 16). An umbrella term like this enables us to cover under the same heading a great range of similar terms with area-specific goals, needs and interests. In addition to all the different variations of language immersion programmes, such names as 'teaching content through a foreign language', 'language-enhanced content learning', 'teaching non-language subjects through a foreign language', 'content-based language teaching', 'foreign-language content instruction', 'language-enriched programmes', 'language medium teaching', and 'two-way bilingual education' occur in the literature, just to mention a few of the terms that have been used throughout the world.

Still the use of a specific terminology may be needed for different contexts, i.e. the European or the Finnish context. In a recent report Marsh, Oksman-Rinkinen, and Takala propose the term 'mainstream bilingual education' for the Finnish context. They use the term to refer to students in the state educational system learning non-language content through a foreign or second language in a context in which the learner's mother tongue is generally the dominant language of the region in which s/he lives (Marsh, Oksman-Rinkinen, & Takala, 1996, p. 8). A term that has been favoured more recently is 'Content and Language Integrated Learning' (CLIL) especially among European practioners and researchers. The advantage of using this term is that it "allows for the movement of both language teachers become more involved with content, and content teachers to become more involved with language" (Marsh, Nikula, & Takala, forthcoming, p. 1). CLIL seems to be a rather neutral term, but has usually been associated with the development of plurilingualism in mainstream education (cf. Nikula, 1997).

There are various reasons why bilingual education has been introduced in different countries. Justification of content instruction in a foreign language can at least partly be sought from the successes documented in the immersion programmes in Canada, the USA, Catalonia etc. Very often, however, the motivations are to be sought in a change in the educational policy of the country. For the USA, bilingual education was regarded to be one of the best means to achieve a language-competent society. Thus the USA has abandoned its isolationist, English-only tradition, and instead the development of a language-competent American society has been accorded the highest educational priority (Padilla, Fairchild & Valadez, 1990a, p. 7).

The learning of foreign languages has also a firm place on the agenda of the European Union. In the "White Paper" (1995) by the Commission of the European Communities, one of the ambitions has been to move towards a society where every young person speaks at least three community languages and it recognizes the potential of teaching through the medium of a foreign language as one means of achieving this goal (Vlaeminck, 1996, p. 5).

Also in Finland a number of national commissions and working parties have advocated an improved quality of foreign language skills among the largest possible number of residents. One of the means of doing this is by increasing the integration of teaching foreign languages and other subjects. Research has consistently shown that one of the most powerful predictors of learning outcomes is what is called OTL, the opportunity to learn (Marsh, Oksman-Rinkinen, & Takala, 1996, p. 10). If the opportunities to learn are limited, the learning results are correspondingly poor. Therefore, bilingual education can be seen as a way of extending the time available for foreign language acquisition without taking time from other equally important subjects (Nixon & Rondahl, 1996, p. 136). The principle aims of this article may be characterized as follows:

1. To review the rationale for bilingual education and present the theoretical justification for introducing bilingual programmes.

2. To capture the main features of content instruction in a foreign language (bilingual education) and elucidate how it is related to other similar constructs.

2. Background

One of the misconceptions about education in a second or foreign language (i.e. bilingual education) is that it is a fairly new phenomenon. One reason why bilingual education has been regarded as a twentieth century phenomenon could be the rapid spread of the immersion bilingual education in Canada. Since the start of the experimental kindergarten class in St Lambert, in 1965, about 300.000 English speaking Canadian children have been enrolled in some 2000 French immersion schools (Baker, 1996, p. 181). During the last 20-30 years, however, bilingual education programmes have been set up in many parts of the world (e.g. in Wales, the U.S.A., Australia, South Africa, Spain, Denmark, Finland)(see Cummins 1987; Artigal 1991; Laurén 1992).

Despite these twentieth century events, the origins of bilingual education are to be sought far back in history. In fact, teaching in a foreign language started in ancient Rome. As Greece became part of the Roman empire (c. 200-80 B.C.), many Romans employed learned Greek tutors to instruct their children (see Takala, 1994, p. 73). These Greek tutors often spoke only Greek, and their teaching was in many respects similar to what today has been called immersion or content-based foreign language teaching. It is also generally known that Latin was the language of instruction in the Middle Ages in European schools and universities. In fact, children who were caught speaking some other language than Latin were punished.

Similarly, dual languages of instruction were encouraged in the U.S. in the eighteenth and nineteenth centuries. Although English monolingual education was the pattern in most schools in the nineteenth century, bilingual education was still common in many large cities, for example in some schools in Cincinnati where "half the day was spent learning through German and the other half of the curriculum was delivered through English." (Baker, 1996, p. 166).

The purpose of content-based foreign language instruction is to integrate language development with content learning. This can be accomplished by providing learner activities which the learner experiences as a vehicle for both language learning and content learning (Curtain & Martinez, 1990, p. 201). Content-based language teaching has been defined as the concurrent learning of a specific content and related skills of language use in a "content-driven" curriculum, implying that the selection and the sequencing of language elements are determined by the content (see Wesche, 1993, p. 57). The integration of content teaching and language teaching has been justified on both theoretical and programmatic grounds (see Snow, 1993, p. 37). For Krashen it provides evidence for his theory of second language acquisition. According to Krashen, language is acquired when a learner understands messages, or when the focus is on what is being said rather than on how it is said. Even though you no longer hear the claim that comprehensible subject-matter teaching *is* language teaching, as was argued by Krashen (1984, p. 62), good content-based teaching can indeed be good language teaching. It has

been demonstrated, however, that pedagogical modifications, "which take into account learners' second language proficiency, interests and subject area knowledge and which ensure a supportive, language-rich classroom environment" are necessary for effective simultaneous teaching of language and subject matter (Wesche 1993, p. 58).

Thus content-based language instruction has a double focus, content mastery and language development. By language development is here meant a development leading to some degree of bilingualism, i.e. communicative competence in L2 as well as L1. A third aim has also been proposed, i.e. that of providing a framework for developing certain higher-level cognitive skills (or academic skills) (cf. Räsänen, 1994, p. 20). It has also been suggested that one of the benefits of language and content integration could be that it gives a new impetus to the improvement of the practice of second language pedagogy. This is even more true because of the increased recognition of foreign language communicative proficiency as one of the major goals in second language teaching.

3. Rationales for bilingual education

As was mentioned earlier, 'mainstream bilingual education' has been proposed as an umbrella term encompassing all kinds of initiatives "in which language and subject-learning play a joint key role in education." (Marsh, et al; 1996, p. 7). Bilingual education may be pursued in widely different contexts. Thus the learner's L1, but also her/his L2, may either be the dominant language or a minority language of the region (or society) in which s/he lives. Insofar as content instruction in English has been tried out in mainstream education in Finland, English has systematically been used in the school setting partly as a social language, and partly (and mostly) for the delivery of subject matter instruction. L2 support (i.e. English) from outside the school institution has been available only indirectly via Anglo-American cultural influences (English-medium music, film, television, video, computers etc.).

Characteristics of immersion teaching

There are many reasons why bilingual education has spread throughout the world. One important reason is no doubt the promising work done in immersion teaching, which was pioneered in Canada in the mid 60s and which was later spread in different forms all over the world. The great success of the International Baccalaureate (IB) system has probably also contributed to the recent popularity of using a foreign language as a vehicle of instruction.

There are, however, certain differences between the terms *immersion* and *foreign language content instruction.* By immersion is usually meant that the target language is available both in the institution and the surrounding community, which entails the provision of a variety of language use opportunities out of class and a strong reinforcement to learner motivation. The term was originally used for majority students in the Canadian context and referred to "*bilingual* programs designed to develop high levels of oral and literate proficiency in both L1 and L2." (Cummins, 1987, p. 149). Cummins recognizes three important characteristics in the French immersion programs in Canada. Firstly, teachers should be bilingual in order to be able to respond appropriately to the children also in their L1. Secondly, the input in French to the child is modified to make it comprehensible. Thirdly, after the initial grades, a strong emphasis is placed on the development of L1 literacy skills.

In the U.S.A., Cummins goes on, the term immersion is very often used to refer to monolingual English-only programmes for minority students "in which children are immersed in the L2 with no instructional support in the L1" (Cummins, 1987, p. 149). These programmes aim at proficiency in the target language (i.e. English) rather than bilingual proficiency. Thus the programmes as well as the teachers are monolingual, and following Cohen and Swain (1976), such programmes are more appropriately referred to as *submersion* than *immersion.*

The immersion programmes as well as other kinds of bilingual programmes fall back on two hypotheses. The first one derives from

recent findings of the cognitive benefits of bilingualism in second and foreign language acquisition. This hypothesis states that there exists an underlying cognitive /academic proficiency that is common across languages. This underlying proficiency, says Cummins, "makes possible the transfer of cognitive/academic or literacy-related skills across languages." (1987, p. 156). The other hypothesis, the so-called input hypothesis, which has been endorsed in some form or the other by most linguists, states that second language acquisition depends not only on exposure to L2, "but also on access to L2 input that is modified in various ways to make it comprehensible." (Cummins, 1987, p. 157).

Cognitive benefits of bilingualism in second language acquisition

What are then the cognitive benefits of bilingualism and plurilingualism in second language acquisition? Recent research into bilingualism and cognitive functioning and into bilingualism and educational attainment has shown that bilinguals by no means are inferior to monolinguals, as indicated in previous research. Early research into bilingualism tended to be based on naive models on bilingual functioning. Thus the balance theory portrays bilingualism as representing two languages existing together in balance. This has by Baker been described with a picture of "weighing scales, with a second language increasing at the expense of the first language." (Baker 1996, p. 145). A similar naive theory of early research is the one depicting bilingualism as two balloons inside the head. Baker writes:

> The picture portrays the monolingual as having one well filled balloon. The bilingual is pictured as having two less filled or half filled balloons. As the second language balloon is pumped higher (e.g. English in the US), so the first language balloon (e.g. Spanish) diminishes in size.
> (Baker, 1996, p. 145).

In fact, many parents, teachers and politicians intuitively and subconsciously take the balloon picture as the one that best describes bilingual functioning. This model, says Baker, conceives of the two

languages operating separately without transfer and with a restricted amount of 'room' for languages (Baker, 1996, 146). Cummins (1980) refers to this as the 'Separate Underlying Proficiency Model of Bilingualism' (SUP). Although the balance and balloon ideas appear logical and plausible, neither of them fits the research findings. In fact, the evidence suggests that there are cognitive advantages rather than disadvantages for being bilingual.

Baker maintains that language attributes are not apart in the cognitive system, but transfer readily and are interactive. This implies that when school lessons are taught through the medium of Spanish, they do not solely feed a Spanish part of the brain. Similarly, when other lessons are in English, they do not only activate the English part of the brain. Rather lessons learnt in one language can readily transfer into the other language (Baker, 1996, pp. 146-47).

> Teaching a child to multiply numbers in Spanish or use a dictionary in English easily transfers to multiplication or dictionary use in the other language. A child does not have to be re-taught to multiply numbers in English. A mathematical concept can be easily and immediately used in English or Spanish if those languages are sufficiently well developed. (Baker, 1996, pp. 146-47).

The above representation of bilingualism has by Cummins (1980) been called 'Common Underlying Proficiency model' (CUP) and can best be presented in the form of two icebergs. According to Baker, the two icebergs, which represent the bilingual's two languages, are separate only above the surface (1996, p. 147). These two icebergs are fused together underneath the surface so that the two languages do not function separately. The model implies that both languages operate through the same central processing system.

The distinction between Separate Underlying Proficiency (SUP) and Common Underlying Proficiency models of bilingualism (CUP) does not fully capture recent findings from research on cognitive functioning and bilingualism. Thus several studies indicate that the further the child moves towards balanced bilingualism, the greater the likelihood of positive cognitive effects. The Threshold Theory, for

example, postulates that the relationship between cognition and bilingualism is most adequately explained by the idea of two thresholds (see Toukomaa & Skutnabb-Kangas, 1977). If the child has not reached the first threshold, she is likely to experience negative effects of bilingualism. This happens when the child has reasonably low levels of competence in both languages (L1 and L2). After having reached the first threshold there will be neither positive nor negative cognitive consequences. However, when the child has reached the second threshold, meaning that the child has fairly high levels of competence in both languages, she is likely to obtain cognitive benefits from bilingualism. From out of the Threshold Theory, Cummins (1978) outlined the Developmental Interdependence hypothesis. This hypothesis postulated that the development of the child's second language competence is partly dependent on the level of competence achieved in the first language. The higher the proficiency in the first language, the easier the development of the second language will be (see Baker, 1996, p. 151).

However, Cummins (1984) developed a further distinction between surface fluency expressed in terms of *basic interpersonal communicative skills* (BICS), and the more evolved language skills expressed in terms of *cognitive/academic language proficiency* (CALP). BICS is believed to occur in simple conversation when there are extensive contextual supports and props for language delivery, i.e. in context embedded situations. CALP is said to occur when higher order thinking skills (e.g. analysis, synthesis, evaluation) are required in the curriculum. The language is then usually 'disembedded' from meaningful, supportive context, and the situation is referred to as 'context reduced' (see Baker, 1996, p. 151). The iceberg image has also been used to portray the distinction between BICS and CALP. Above the surface we find more basic skills such as pronunciation, vocabulary and grammar, whereas the more subtle language skills of meanings and creative composition are found underneath the surface. Cummins' theory postulates that the surface fluency (BICS) in L2 develops more or less independently of *first* language BICS. Contrary to this, cognitively demanding communication skills (CALP) occurring in a context reduced situation, are believed to develop interdependently between L1 and L2. What Cummins considers

essential in the bilingual education of children is a highly developed 'common underlying proficiency'. Thus, the child's cognitive abilities need to be sufficiently well developed to cope with the curriculum processes of the classroom. This underlying ability, says Baker, "could be developed in the first or second language, but also in both languages simultaneously" (Baker, 1996, p. 153).

To sum up, at least the following findings about the relationship between bilingualism and cognitive functioning, and bilingualism and educational attainment are of relevance in the planning of different kinds of content and language integrated programmes (bilingual programmes).

1. Bilingualism/plurilingualism is an advantage rather than a disadvantage.

2. For bilingual education to function properly in the classroom, the child's cognitive abilities (i.e. the common underlying proficiency) need to be sufficiently developed.

3. The content learnt in one language readily transfers to another language (provided the child's cognitive abilities are highly developed).

4. The child's cognitive academic language skills (CALP) are believed to develop interdependently between L1 and L2.

5. If the children's native language is deficient (especially with minority children), they run the risk of being at a disadvantage in a bilingual programme.

The role of input in second language acquisition

The other hypothesis on which bilingual programmes are built is the so-called input hypothesis. Input has usually been defined as the linguistic data from a potential target language available to the learner (Saleemi, 1989, p. 173). Although the amount and type of input may

differ, language input is evidently a necessary condition for both first and second language acquisition (cf. Wode, 1981, p. 302; Klein, 1990, p. 220). We do not lack evidence in support of the relationship between quantity of input and language proficiency, but it has also been demonstrated that the learner's output is not isomorphic with native speaker input, i.e. learners do not assimilate all the native speaker forms to which they are introduced (Larsen-Freeman, 1985, p. 442). Beebe maintains that when we inquire into what input becomes intake in SLA, "we must study the feelings or motivations behind preference for or rejection of various target models and situational factors that shape preferences" (Beebe, 1985, p. 411). In fact, the learners are clearly not passive recipients of target language input, but they are actively (though not necessarily consciously) choosing what input to attend to.

Some researchers, for instance Krashen, claims that the only thing needed for acquisition to take place is comprehensible input, i.e. the roughly tuned teacher/native speaker and learner speech arising naturally from *communication*, delivered in a low affective filter situation (Krashen, 1981, p. 57).[1] It has been argued elsewhere, however, that although comprehensible input may be necessary and sufficient for SLA, instruction may simplify the learning task, alter the processes and sequences of acquisition and improve the quality and level of SL ultimate attainment (Larsen-Freeman & Long, 1991, p. 304). A serious flaw in the reasoning behind the proposals about the role of comprehensible input in second language acquisition is that it is assumed that a programme with the necessary and sufficient conditions for successful language learning is automatically the most efficient/effective programme possible. This is of course untrue. The reasoning above would be similar to claiming that because some plants will grow in the desert, watering the ones in your garden is a waste of time. Although it is true, argue Larsen-Freeman and Long, that the desert may provide the minimum conditions for a plant to

[1] Krashen defines comprehensible input (or even better, comprehended input) as "containing i+1, structures a bit beyond the acquirer's current level," (Krashen, 1982, p. 33)

grow, "watering it may help it grow faster, bigger and stronger, that is, to realize its full potential." (1991, p. 304).

What should content instructors then do to maximize the comprehensibility of content instruction? Specifically, questions such as "When does teacher talk work as input?" and "What adjustments in the classroom setting have proved efficient?" ought to be answered. A great deal of research has already been done in this field (see Wong Fillmore, 1985; Snow, 1990b). Thus it has been found that students will gain more language competence in the long run if the *functional* purposes of language are the focal point (cf. Brown, 1994, p. 17). The emphasis in successful classrooms will therefore be on communication. It has also been found that content instructors as well as language teachers tend to adjust and modify their language when communicating with language learners. The teacher's language is probably less complex than it might have been for native speakers, and more 'precise' and more 'expository'. The technique used to make input comprehensible has been referred to as *negotiation of meaning*, a reciprocal process in which the teacher and the students make sure that they understand each other (Snow, 1990b, p. 159). Other instructional strategies found in successful language classrooms are extensive use of body language and frequent drawings on background knowledge (Snow, 1993, p. 47).

4. Models and procedures in bilingual education

Needless to say, this report has no ambition to duplicate the numerous descriptions of bilingual education already in existence. Excellent descriptions of bilingual education research and practice of the Canadian and American bilingual education programmes can be found for example in Cummins (1987), in two volumes by Padilla, Fairchild, and Valadez (1990a; 1990b), and Baker (1996, ch. 10,11). The European models of content-based language education have been aptly described in Beatens Beardsmore (1993), and more recently in Fruhauf, Coyle, and Christ (1996).

Immersion versus content-based language teaching

The immersion programmes in Canada and the U.S. have demonstrated that students at elementary and secondary levels can successfully learn subject matter taught in a foreign language (see Baker, 1996, pp. 200-224, Genesee 1987). These programmes have stimulated interest in using content-based learning in other types of primary and secondary school foreign language programmes that have traditionally been organized thematically around vocabulary topics. The incorporation of subject matter teaching in early language programmes puts language into a larger and more meaningful context which provides situations that require real language use. It is assumed that learners become proficient in the language because the focus is on the exchange of important messages, and language use is purposeful (cf. Curtain & Haas, 1995). Basically, content-based foreign language instruction means that the second language is used for the delivery of subject matter instruction. Thus the students learn the regular school subjects that all youngsters must study in elementary and secondary school while "incidentally" learning a second language (Snow, 1990a, p. 111).

In the following, a brief description of what has been known as content-based language instruction or teaching content through a foreign language (which is usually English) will be attempted. As the term *immersion* has been used with very much the same meaning as content-based language teaching by some researchers, a comparison of these two concepts was considered to be of some interest (cf. Wode, 1996). The term *immersion* is, in the Canadian context, only applied to such school programmes that allow at least 50 % of the teaching time to be done in the target language (L2). The immersion models tend to be rather rigid as to the proportion of L1 and L2 exposure needed and as to the age at which to start L2 immersion and L1 literacy instruction. Also the methodology is rather strict in that Canadian immersion programmes allow each individual teacher to have only one language role (either French or English). The term immersion also presupposes that L2 is available both in the institution and the surrounding community, which provides ample language use opportunities out of class as well as strong reinforcement to learner

motivation. Furthermore, the term immersion originally implied that the learner's mother tongue is the majority (or dominant) language of the region in which s/he lives and that the learner also acquires some cultural knowledge of the target language (i.e. the minority language of the region). The aim of immersion was thus to achieve some degree of *functional bilingualism* (cf. Nikula & Marsh, 1996, pp. 6-8).

How does immersion differ from teaching content through a foreign language (or mainstream bilingual education)? By the latter term is usually meant that students in the state educational system are taught non-language content partly in a foreign (or second) language, and partly in their mother tongue. It is difficult exactly to state the amount of the teaching time that should be allocated to L2. Yet Räsänen argues that research seems to indicate that a minimum of 25 % is a prerequisite for successful language learning (Räsänen, 1994, p. 21). This percentage has also been recommended by the Council of Europe 12 A Workshop (1993). Some balance between L1 and L2 is needed, "but more important is the purpose, manner and method in which the two languages are used." (Baker, 1996, p. 239). The term *teaching content through a foreign language* (TCFL) differs from *immersion* also in that only certain school subjects may be taught in the target language (not all as in immersion), and in that the target language support from outside the school institution may be lacking. The methodology is also less strict than in immersion programmes. It is up to the professional teacher more flexibly to allocate the use of teaching time for L1 or L2. In practise, however, a similar instructional methodology as in immersion programmes is used.

Prototype models of content-based language teaching

Three basic prototype models for content-based language teaching have been described in Brinton, Snow and Wesche (1989) (see also Wesche, 1993; Räsänen, 1994). The three models referred to are *theme-based* language courses, *sheltered* content courses, and *adjunct* (or linked) language and content courses (Wesche, 1993, p. 60). As these models have been dealt with in some detail elsewhere, they will receive a rather superficial treatment here.

The organizing principle in the *theme-based* model is a series of topics or themes, or a major theme with subtopics. Language activities, says Wesche, are based on problems arising from the use of authentic materials, rather than being organized around a grammatical or other code-centred sequence. The theme-based model is the most wide-spread of the models and can easily be used within existing language courses for all ages, proficiency levels, and purposes. As the primary focus is on language learning, the language instructors are also responsible for the content materials (Wesche, 1993, p. 61).

In *sheltered* courses, the language learners are separated or 'sheltered' from native (L2) students, and the focus is on the mastery of content material. A content area specialist with sufficient L2 knowledge is responsible for the instruction. A brief period of language instruction by a language teacher may sometimes be integrated with the sheltered course in order to facilitate content learning. Even if the enrollment to sheltered courses is limited to non-native (L2) speakers, this model requires that students possess advanced listening and reading skills (Wesche, 1993, pp. 61-62).

The *adjunct*, or linked model implies that advanced students are taking a content course and a separate language course simultaneously. Students enroll in both courses -the idea being that these courses complement and support each other. In some second language programmes in North America, advanced second language learners are integrated with native speakers in the content course, but segregated (or sheltered) from them in the language course. The presence of native speakers in the adjunct content course makes it necessary, however, that the participant L2 speakers have a very high L2 proficiency for this model (Wesche, 1993, pp. 61-62).

Instructional strategies in foreign-language content instruction

It has been argued that a new set of skills and responsibilities is required for language teachers integrating content into a class, such as in theme-based or adjunct classes. One of the most comprehensible descriptions to date of the kinds of strategies teachers use to make

descriptions to date of the kinds of strategies teachers use to make content instruction comprehensible to language learners is provided by Wong Fillmore (1985). Specifically, Wong Fillmore tried to identify the characteristics of the language used in the classroom that worked well for language learners.

Wong Fillmore's study indicated that clear separation of languages was essential. She argues that translation or concurrent instruction in both languages do not promote success in language learning (see Snow, 1993, p. 46). Language separation has often been advocated by sociolinguists with the intention to establish clear boundaries between the use of the two languages in the curriculum. However, it has also been argued that, on occasions, the integrated use of both languages rather than language separation can be of value in a lesson (Baker, 1996, p. 238). Jacobson (1990) has in a number of publications proposed that concurrent usage of the two languages may strengthen and develop both languages. Jacobson's concurrent approach presupposes, however, that there is some balance between the time allocated to the two languages and that there is a conscious and planned movement from one language to another in a regular and rational manner. Such shifts between two languages inside a lesson is believed to "reinforce taught concepts by being considered and processed in both languages. A use of both languages, it is suggested, contributes to a deeper understanding of the subject matter being studied." (Baker, 1996, p. 238).

Another finding in Wong Fillmore's study was that the emphasis in successful classrooms is on communication, which is a generally recognized fact today. Researchers and practioners know that, in order for meaningful communication to take place in a second-language classroom, there must be some kind of "information gap" or "opinion gap" (see Curtain & Martinez, 1990, p. 202). When content-based language teaching is incorporated into our classrooms, language practice must have a purpose that goes beyond the empty and isolated manipulation of formal language features. Typical questions in communicative, content-based foreign language classrooms require students to provide answers that are not known in advance.

An interesting finding in Wong Fillmore's study was also that various kinds of adjustments and modifications tended to be used by speakers when communicating with language learners. She found that teachers never used ungrammatical or "reduced foreigner-talk", but tended to use a language that reflected an "instructional" register which made their language look more "precise" and "expository". Teachers did not make assumptions that students would understand them. Instead they negotiated their messages in different ways to facilitate learning (see Snow, 1993, p. 47). Successful language teachers modified their language also in that they adopted patterns and routines for their lessons, used repetitions which provided multiple cues of meaning and finally, by tailoring input to fit different levels of student proficiency.

In a survey of experienced immersion foreign language teachers from well-established immersion programmes in the United States, Snow identified several core instructional strategies and techniques leading to effective instruction (Snow, 1990b, pp. 160-161). For immersion teachers to become successful, she argued, they must also be prepared for several additional responsibilities. Thus teachers of foreign-language content instruction need more preparation time for curriculum development and material construction (e.g. translations). They need to have a very good understanding of the subject matter because they have to allocate comparatively more time to the preparation of lessons and materials to make input comprehensible to the learners. Similarly, as the immersion foreign language students lack both basic and specialized vocabulary, teachers must provide for the development of content-compatible vocabulary in a systematic manner.

Snow (1990b) lists several instructional strategies that have proved effective in immersion programmes. Thus she argues that an extensive use of body language has proved useful. Especially in the early grades, it is important to link the abstract to the concrete by supporting the communicative learning situation with pantomime, gestures, and facial expressions. Other strategies she mentions is that immersion teachers must provide clearer directions and structures for learners so that they can anticipate or guess meaning even if they do not understand the language. Similarly, successful immersion teachers

tend to draw heavily on background knowledge, which will lead to meaningful learning meaning that new information is subsumed into existing structures and memory systems. Other ways of building redundancy into the lessons is by extensive use of realia, visuals, manipulatives and other hands-on activities to promote multisensory experiences. Snow mentions several other techniques such as use of repetition, paraphrase, restatement, and synonymy to increase the learners' chances to understand the language (Snow, 1990b, p. 161).

A few other instructional strategies have also been suggested as beneficial to second-language learning in a linguistically heterogeneous bilingual situation. One such strategy is co-operative learning (see McGroarty, 1989; Snow, 1990b). There are several arguments for using co-operative learning in content-based language classrooms. One argument, says Snow, is that co-operative learning provides frequent opportunities for natural second-language practice and oral negotiation of meaning. Another argument is that it "requires a variety of materials, including texts and nonverbal, visual, and manipulative strategies to support instruction" (Snow, 1990b, p. 167). An instructional strategy that also has been alleged to be typical of bilingual classrooms is autonomous learning (or self-directed learning). Learners having the capability to become independent learners are believed to be good language learners and possess good target language skills (Marsh, Oksman-Rinkinen & Takala, 1996, pp. 62-63).

5. Concluding remarks

The motivation for setting up bilingual programmes may be fairly different in the United States and Europe. Also the models of teaching content through a foreign language and immersion may differ from country to country. In Europe, these differences probably have to do with the length of experiences various countries have with content-based language teaching. In a recent report, it was found that the reasons for starting bilingual programmes in Europe are very similar, though (Fruhauf, Do Coyle & Christ, 1996, p. 178). In all the nine European countries mentioned in the report, the motivation for

teaching content through a foreign language was to improve pupils' fluency in the target language and thus increasing their employment prospects in the European labour market. Another interesting thing to note in the report was that many countries view bilingual education as an integral part of internationalization and the goal of bilingual education then being to develop the pupil's cultural awareness. The models of bilingual education in Germany and France, for example, "were initially based almost completely on a desire to promote an awareness and understanding of each others' cultures. A number of authors refer to aims such as preparing pupils to become 'cultural ambassadors' or members of the 'global village' " (Fruhauf, Do Coyle & Christ, 1996, p. 178).

Because of the poor results in traditional language classes, there is every reason to seek ways to remedy the situation. A lot can be achieved by increasing the number of opportunities for pupils to be engaged in various kinds of meaningful contacts with second/foreign languages (Takala, 1994, p. 76). There are several ways of doing this. One way of doing it is through teaching through the medium of a foreign language. It is important to stress, however, that whenever advocating arrangements that aim at giving second/foreign languages a boost, one should be able to show convincingly that nothing is done to weaken – or even seem to weaken – the learner's first language or any other languages or linguistic groups. This, says Takala, is an especially sensitive issue for all minorities (Takala, 1994, p. 76). To date, there is no evidence that the modern systems of second/foreign language teaching would have negative effects on the pupils' first language. The students in the early total immersion groups, for example, have a slightly delayed L1 development (English) compared to students in mainstream classes. This result cannot but be expected, because these immersion students have not received any L1 teaching for one, two, or three years after starting school. However, after approximately six years at school, "early total immersion children have caught up with their monolingual peers in English skills." (Baker, 1996, p. 204).

Bilingual education has no doubt benefits as well as limitations. One of the problems with the method is that, in practice, "*teaching through the medium of a foreign language* almost always means *teaching in English*" (Vlaeminck, 1996, p. 6). It may be hard to gain support for the teaching through a foreign language if it is seen as another means of promoting the spread of a dominant language at the expense of those which are less widely used and less taught (Vlaeminck, 1996, p. 6).

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Foreign language content teaching in teacher education at Åbo Akademi University

Kaj Sjöholm

1. Introduction

In the early nineties, the strong urge to increase international contacts at all educational levels brought about a change in Finnish school legislation. From 1991, the school law states that the medium of instruction may, if it is considered appropriate, be other than the instructional language of the school. In mainstream education, the language of instruction had before 1991 invaryingly been Finnish or Swedish (or Sami in a few northern municipalities). The new legislation also states that both comprehensive schools and upper secondary schools may have one or several teaching groups (classes) in which the language of instruction is a language other than the school's ordinary teaching language. Participation in these teaching groups is voluntary.

In the wake of the new legislation, a great number of experiments with different variants of bilingual education programmes have been set up at different school levels throughout the country (see Marsh, Oksman-Rinkinen, & Takala, 1996; Nikula & Marsh, 1996). These programmes were established, at least partly, as a result of a strong parental opinion that foreign and second language immersion of different kinds would be an efficient means of increasing the school

children's second language skills. Within the Finnish-speaking school system for example, a great number of schools have started Swedish immersion programmes (see Laurén, 1992; Buss & Laurén, 1996). Among the foreign languages that have been used in foreign-language content classes, English is by far the most common. Thus Vasa övningsskola established 'teaching content through English classes' (TCE-classes) at the Primary level and Lower Secondary School level as early as 1991. Since 1992, the Upper Secondary School of Vasa övningsskola maintains a programme organized by the International Baccalaureate Organization. A couple of years later (in 1994), the Faculty of Education at Åbo Akademi University accepted a plan in which theoretical studies in English content teaching were integrated with a period of teaching practice in TCE-classes at Vasa övningsskola.

The central aim of this article is to give a brief overview of the development of English medium content teaching in the framework of teacher education at Åbo Akademi University.

2. Bilingual education in Finland

In the following, the experiences and the research done so far on content-based language teaching and immersion in the Finnish context will briefly be discussed. As has been stressed elsewhere, there is relatively little research-driven information available on content instruction in a second /foreign language in the European context and even less so applicable to the Finnish context (see Marsh, Oksman-Rinkinen, & Takala, 1996, p. 11; Marsh, Nikula, & Takala, forthcoming, p. 5). The experiences with the many different bilingual and immersion programmes in Canada and the USA are, however, well documented and thoroughly investigated. Although for instance the immersion programmes in Canada are thoroughly treated in more than three thousand research papers, these studies are highly context-specific. As has been pointed out in Marsh, Nikula, and Takala, the North American experiences are of academic interest and, no doubt, of some relevance, but they may not have direct bearing on the

introduction of content and language integrated teaching in the Finnish national context (forthcoming, p. 5).

Bilingual education and foreign-language content instruction in the Finnish context have recently been described in a number of reports by a Jyväskylä research team. The general framework for Finnish bilingual education was set up in a report by Räsänen and Marsh (1994), and was to be followed by two national surveys of the use and implementation of mainstream bilingual education in Finnish schools at different levels. The first report was concerned with bilingual education in primary and secondary level schools (Nikula & Marsh 1996), the second treated bilingual education in secondary and tertiary levels of vocational education in Finland (Marsh, Oksman-Rinkinen & Takala, 1996). The Finnish approach to 'immersion' has also been dealt with in a volume issued by the European Platform for Dutch Education, which is a compilation of case studies of bilingual education in nine European countries (Marsh & Masih, 1996).

A different strand of bilingual education has been developed in Vaasa. In fact, Swedish immersion among Finnish-speaking pre-school children was started as early as 1987 (see Laurén, 1996, p. 10). With the new school legislation from 1991, the research on immersion in the Finnish context got a new lease of life. Thus about 20 researchers are presently involved in immersion in the University of Vaasa, where most of the Finnish immersion research has been concentrated (Björklund, 1996, p. 23). Since the start in Vaasa, immersion programmes have spread all over the country. Usually the early total immersion model has been adopted, which means that the children begin immersion in kindergarten (Björklund, 1996, p. 244).

3. Bilingual education and teacher education at Åbo Akademi University

Content and language integrated teaching has been rather commonplace in the 13 teacher training schools in Finland which are attached to universities, but this has "not generally been supported by theoretical studies in the university faculties themselves" (Marsh,

Nikula, and Takala, forthcoming, p. 4). A similar trend as above could to some extent be noticed also in Vasa övningsskola, the teacher training school attached to the Faculty of Education in the Swedish medium Åbo Akademi.

As a matter of fact, Vasa övningsskola was one of the pioneers in Finland to establish content-based instruction through English. At the primary level, the instruction in English has been given in a special English section (called the English Department) in three classrooms, a science room, and a large hall since 1991 (see Slotte this volume). At the lower secondary school, the subjects taught in English have varied slightly from year to year, but the first subjects introduced were mathematics, history, biology and geography. Instruction in English has later been given to some extent also in home economics, religion and physical education (cf. Jakobsson this volume). The pupils in the English medium classes at the primary and lower secondary level have received a minimum of 25 % of their instruction in English. In the International Baccalaureate programme at Vasa övningsskola, the language of instruction is English from the very beginning since half of the students have Finnish as their mother tongue. Since the start in 1992, students have taken IB exams four times with increasingly good results (see Jungner this volume).

For a couple of years, Vasa övningsskola developed the methodology of content-based English teaching with little or no support by theoretical studies in the Faculty of Education. However, one of the teachers at Vasa övningsskola participated in the teacher in-service development programme in foreign language content instruction run by the Continuing Education Centre of the University of Jyväskylä (see Marsh & Räsänen, 1994, p. 32). Additionally, the Åbo Akademi Department of English was employed to arrange a skill course in English for the TCE teachers in the mid-nineties. In 1994, however, a working party was commissioned to map the needs for content instruction in English at the Department of Teacher Education and to present a plan how best to satisfy such needs (cf. Sjöholm, 1996, p. 2).

The working party proposed that English medium teaching at this stage would be allocated to four sectors. Firstly, it was suggested that

the faculty should offer courses in the methodology of content-based language teaching (TCE) to student teachers. Only the participants in these courses would have access to the teaching practice in the TCE-classes in Vasa övningsskola. Secondly, it was proposed that the development of the IB programme at Vasa övningsskola was to be supported in different ways. The third sector that the working party emphasized was the development of education of refugee teachers. English would at least initially be the language of instruction in the refugee classes. Finally, the group proposed that a joint English medium teacher education programme between Åbo Akademi University and the University of Dar es Salaam was to be set up (cf. Hansén, 1996, p. 13). This programme, which has been referred to as the Teacher Education Project in Tanzania (TEPT), is reported on in Malmberg, 1996.

According to the proposals by the working party, Åbo Akademi offers, since 1995, an optional 3 credit unit course in content and language integrated learning/teaching theory (TCE). This course, which is designed for class teachers, is integrated with a 2 credit unit of practical teacher training at Vasa övningsskola. The central aim of the course is to present research-driven information about content-based language teaching and immersion teaching, and to present the most common instructional strategies used in the different varieties of bilingual education. Thus learners should, after completing the course, be able to use content-compatible English vocabulary and authentic teaching materials. The course, which is planned for a maximum of nine students per year, is now run for the fourth time. A separate TCE-course for subject teachers (2 credit units) has been run once (1996-1997), but for administrative reasons the course is now integrated with regular teacher education.

4. Future scenarios

The joint TCE-project between Vasa övningsskola and the Faculty of Education of the Åbo Akademi University, strives to further develop the methodological skills among the TCE teachers in both units. This will be done by providing specially tailored in-service programmes

and seminars and by continuously evaluating the models of TCE currently in use. Similarly, new approaches and techniques will be tried out and assessed in order to increase the student teachers' methodological skills to teach in TCE classes. New teaching material tailored for the TCE programme will be examined and evaluated. Finally, the efficiency of the TCE teaching will be established, in terms of both content and language objectives.

The project has a broader aim, though. Thus efforts have been made to spread the knowledge of TCE methodology to educational institutions outside Vasa övningsskola and the university faculty. Recently, a 5 credit unit course called 'Teaching Nursing through English' was started in Vasa. The course, which is subsidised by the Provincial State Office of Western Finland, is coordinated by the Centre for Continuing Education of Österbottens högskola. Similarly, the TCE methodology is included in a recently started module of 15 credit units called 'flexible language methodology'. These studies, which may later be supplemented by a further block of 20 credit units, aim at providing students with methodological insights to deal with language instruction in a bilingual or plurilingual environment in Swedish-speaking Finland.

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The English Department at the primary level of Vasa övningsskola

Anna-Brita Slotte

1. Introduction

Content-based language instruction is today, according to the Ministry of Education in Finland, one of the main focuses in the development of the Swedish schools in Finland (Räsänen & Marsh, 1994, p. 1). At Vasa övningsskola, where future Swedish-speaking teachers in Finland get their training, teachers and administrators are aware of this fact. The English Department of Vasa övningsskola was established in 1991, which makes the school one of the precursors in Finland, with guidelines for content-based instruction through English in grades 1-6 according to the opportunities provided by the new school legislation (Grundskoleförordningen §33/176, 25.1 1991).

The pioneer work was done by Margareta Morgan and Marika Masar. Margareta Morgan coordinated the work during the first four years and Marika Masar was the first primary level teacher at the English Department of Vasa övningsskola. The coordinator today is Heimo Oksanen.

2. Characteristics of the English Department

When teaching content through English (TCE), the teacher needs to plan her/his classes in a constructive way so that language and content are closely integrated, since s/he is teaching both at the same time (Räsänen & Marsh, 1994, pp. 32-36). All teaching at the English Department aims at giving the learners proficiency in communicating in English at the same time as they reach the goals set for each individual subject. The learners at the English Department are also taught in Swedish. No specific subject is nowadays taught entirely in English. The teachers are free to choose which subjects and what themes they consider to be the most appropriate to teach in English in their classes. When choosing a subject or a theme to be taught in English, teachers always take into consideration how cognitively demanding and how language dependent that specific theme is.

> language is learned as it is used; it is not learned first and used later.
> (Artigal, 1991, p 27)

Content-based instruction through English is begun in grade 1 where the main focus is set on oral communicative activities. The goal is to use English as the classroom language at least 25% of all the lesson-time in grades 1-6, and to develop the oral proficiency of the learners so that they not only listen to the teacher but also answer her/him in English as well as use English when talking to each other. The teacher needs to ensure that communicative exchange occurs and reduce the difficulties encountered by the child, not only when receiving input in the new language, but especially when producing output in it (Artigal, 1991). The teaching methods at the English Department at Vasa övningsskola can be characterized as something between partial immersion and subject courses taught in L2 (cf. Roy, 1980). As the children learn more English, more themes are also taught in the foreign language instead of Swedish. The children's language proficiency and their language background, as well as the main emphasis of the curriculum of Vasa övningsskola are also taken into consideration when the different themes and subjects are planned. Similar instructional methods are used as in regular classes, but the

emphasis is on the use of concrete referents through real-life objects and pictures, body language as well as total physical response.

> The only way language use can be learned is by using it communicatively.
> (Bruner, 1983, in Artigal 1991, p. 24)
> It is as users of the new language that people become learners of it.
> (Di Pietro, 1986, in Artigal 1991, p. 24)

The social language at the English Department is English and the teachers and teacher trainees ought to try not to use Swedish when learners are present. This arrangement will enable the children to hear as much English as possible during their school-day, which is especially important considering that the school environment might be the only place where many of them get an opportunity to learn, use and practice their English.

The English Department has from the very beginning worked hard to establish its own traditions based on those of Great Britain and North America. Halloween, Thanksgiving and Valentine's Day are some of the annual festivities and Covenant Players have visited the school every second year since the start in 1991. The teachers are aware of the fact that all different kinds of English cultural events cannot be represented and therefore they have made a personal choice as to which culture and what pronunciation they emphasize the most. These choices are concretized by flags outside the three classrooms of the English Department.

The English classes at the primary level of Vasa övningsskola have since the fall of 1994 had their own department with three classrooms, a small science room, a large hall which is also used as a classroom, and an office for the teachers. This section of the school is called the English Department, the classrooms are called Lower Deck (grades 1-2), Tween Deck (grades 3-4) and Upper Deck (grades 5-6) and the teachers' office is called Officers' Mess; names which represent a way to form the identity of the department. Characteristic of the English Department is also that the teachers work as a team, so that all learners are taught by the three teachers periodically. The main purpose of this team work is to give the learners a feeling of belonging together and

security in knowing that they have three teachers, instead of one, that they can turn to.

Parents who are interested in having their children enrolled in the TCE classes can apply for admission when their children start school. In the beginning it was thought that bilingual children would benefit the most from this language program, but now it is believed that any child that has reached a certain "threshold level" of proficiency in their mother tongue (usually Swedish, the school language of Vasa övningsskola) will become a successful learner within the TCE-program (cf. Allwood, MacDowall, & Strömqvist, 1986, p.229). The children are not randomly selected to the program. All children interested in the program are called to an interview, which is an oral test to ensure that they have a good knowledge of Swedish. New learners are accepted to the TCE classes by the principal on the basis of the test results as well as their language background (English playschool, native speakers of English etc).

> Total immersion in the second language is only efficient if the subject has attained the appropriate level of development in the first language at entry to school.
> (Arnau, 1985, in Artigal 1991, p. 47)

3. Teachers and teacher trainees

The teachers at the English Department of Vasa övningsskola have taken courses in TCE as well as in English. They frequently visit schools with different language programs in Finland as well as in Britain and in the USA. All the teachers have a Master's Degree in Education.

Teachers at the primary level of the English department, Vasa övningsskola:

Marika Masar 1991-95
Margareta Morgan 1992-95
Anna-Brita Slotte 1994-

Heimo Oksanen 1995-
Birgitta Lönn 1995-96, 1997-1998
Pia Nummelin 1996-97
Nina Häggdahl 1998-

Teacher trainees do not have to teach in English in the TCE classes. The teachers can only wish that the teacher trainees would do so, but they cannot require it. The more English-speaking teacher trainees the classes get, the higher the degree of daily English input will be in the classrooms. The department aims at having at least one teacher trainee who is able to teach in English in the classes during each period of teacher training. However, some of the teacher trainees attend an optional 3 credit course on TCE at Åbo Akademi University, the Faculty of Education, and these students are expected to use English as a language of instruction in the TCE classes.

4. The role of native English

A native speaker of English taught at the department during the first two years. The subjects taught by the native speaker were science and environmental studies. The same person also organized an English club that met once a week. This was in many ways a good arrangement, but teacher trainees could not teach the native speaker's subjects during this period since this teacher was not a qualified primary level teacher and therefore not employed to tutor them. Furthermore, it was not beneficial to the learners to have all the themes in science and environmental studies taught in English. Some of the themes, such as Finnish traditions, it seemed more appropriate to teach in Swedish. If the financial situation today allowed the school to employ a native speaker again, the other TCE teachers would like to have that teacher to alternate in the classes during shorter periods and in different subjects.

Another way of increasing the English input, especially in grades 3-6 where there are so many teachers involved apart from the classteacher, would be to employ a teacher who speaks both Swedish and English. This would then make it possible to split up the subjects between the

four teachers and to try to create an atmosphere where English would be used even more often than today. At present, teachers who have only one subject or one class a week at the English Department are not required by the principal to speak English when teaching the TCE learners.

5. Differences in initial language competence

The children at the English Department have a very heterogeneous knowledge of English when beginning in grade 1. There are no requirements set that children should have any knowledge of English when they are enrolled in the TCE program. Some of them are native speakers of English, some have lived abroad in an English-speaking environment, and some have attended an English school or an English playschool, but most of the children have almost no knowledge of English when beginning in grade 1. The learners with some background knowledge of English are usually more confident when faced with English in the classroom. Those with no experience of English often hesitate to express themselves in English for some time.

To narrow the gap between the learners and make the teaching as well as the social language seem more meaningful to everyone, the children have one lesson of English per week that emphasizes the importance of being able to use and understand spoken English. Oral production is emphasized since learning the new language entirely by reading and writing is not considered suitable with a group of children of whom some do not know how to read and write yet. One of the obstacles when teaching English to children aged 6-8 has been to find a suitable language material. Is there a teaching material available that considers the cognitive development and language acquisition of children at this age; a material that appeals to most of the children in this particular setting and emphasizes oral activities?

6. Research and development

In the early 90's, the Swedish-speaking television in Finland (Finlands svenska television) broadcast "Muzzy in Gondoland", a language course produced by the BBC. Some parts of the course were recorded by a teacher at Vasa övningsskola and the children in grades 1-2 were able to get aquainted with it. When watching the program some of the children began repeating some of the phrases and most of them seemed very anxious to watch some more. The material "Muzzy in Gondoland" is now being tested and evaluated in an ongoing study at Vasa övningsskola to find out whether or not it could be a useful material, what its advantages versus disadvantages are when teaching English to children aged 6-8 in a content-based TCE setting.

A few theses have been written on descriptive studies of the teaching and the practical arrangements at the primary level of the English department at Vasa övningsskola. The teachers feel there is a need for both quantitative and qualitative studies of the effects of teaching content through English. This kind of evaluation is needed to improve the program; a necessity for both the teachers as well as the learners.

> Immersion teaching involves much more than simply taking the standard school curriculum and teaching it in a foreign language. Pre-service and in-service training are required to adequately prepare teachers for the challenge of immersion teaching.
> (Snow, 1987, p. 6)

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Reflections on teaching content through English at the lower secondary level of Vasa övningsskola

Gun Jakobsson

1. Introduction

I work as a biology and geography teacher at the lower secondary level of Vasa övningsskola. My language of instruction is English. This is a very personal choice. First of all it gave me the opportunity to fulfil one of my dreams; to give up traditional textbooks and produce my own material for the pupils, i.e. material adapted to my own ideas of teaching. Furthermore, I felt a need to improve my own language skills in English and saw this as a challenge.

2. The start

In 1991, the comprehensive schools in Finland were given the opportunity to introduce subject matter teaching through a foreign language. Vasa övningsskola was prepared to meet this challenge. The first steps had already been taken at our upper secondary level when starting up an IB (International Baccalaureate) program and the new opportunity only felt natural. Why not start English programs at the lower levels at the same time?

With little theoretical knowledge or practical experience we settled for the TCE method (TCE = teaching content through English). Teachers were offered in-service education in English and in TCE methodology. I must admit that the theoretical basis for the TCE method was not given proper attention then or even later. Most of our current knowledge of TCE methodology is based on practical classroom experiences. It is not until the last few years that the co-operation with the Department of Teacher Education at the Faculty of Education has developed.

In the beginning, the TCE method involved only a few school subjects which were chosen on the basis of the interest among our teachers. Mathematics, history, biology and geography were the first subjects taught through the TCE method. During the last three years chemistry and physics have been added. From time to time other subjects have also been involved, mostly to a limited extent for certain projects in home economics, religion and physical education. Ever since the IB section engaged a native speaker for the teaching of English, this person has also been involved in the English teaching in the TCE classes at the lower secondary school level. The pupils who choose the TCE class receive about 25 % of their instruction through English.

TCE teaching is arranged for one group of pupils in each form (grade 7-9). During the first years, the selection of pupils to the TCE class was based on application and testing. Since a few years back, a group of TCE pupils, after having finished the primary school, has automatically been transferred to the TCE class at our secondary level. A few of the pupils have chosen to continue in a regular class but usually they all continue for three more years within the TCE program. We also give newcomers from our own school and from other primary schools the opportunity to apply for admittance to the TCE class of form 7. Every year we have a handful of applicants from schools outside our own.

The applicants are tested in Swedish (mother tongue) and English. In addition, the applicants' grades in Swedish, English and mathematics from their last year in the primary school are also used as criteria for

selection. The experience we have had so far shows, however, that most applicants are highly qualified. They are often pupils with experiences from English schools abroad or long stays in English-speaking environments. The size of the TCE groups is about 16 pupils; 12 with a TCE background from the lower level and 4 newcomers, who mostly blend in very naturally during the first semester in form 7.

3. Goals of instruction

First a few words about the general goals of instruction in our school. We emphasize that the TCE classes should be part of the everyday work of the school. Above all our ambition is to develop three important qualities in our pupils: communicative, laboratory and social skills. TCE teaching is in my opinion well suited to match the demands for developing these qualities. The TCE teacher is consciously selecting material and methods, continuously checking his work with the curriculum and the educational objectives. A lot of time and effort is put on the active work of the pupils, individually and in groups.

When we first introduced the TCE classes, we naturally set up some general goals of instruction for this new approach to integrate language and content learning. We decided to emphasize four different aspects of competence: linguistic competence, pragmatic competence, strategic competence and cultural competence. Within the school curriculum and the teachers' annual working plans these aspects are further developed.

The main purpose of my instruction in biology and geography has been to awake a genuine interest in nature and to increase the learner commitment to environmental issues. I want to develop the pupils' oral skills and their readiness to communicate in a meaningful way also within the field of science. Their practical and social skills will develop in interaction with their peers during excursions, through laboratory work and presentations of thematic projects.

4. The curriculum

All the subjects taught in the TCE classes follow the general school curriculum. We have found no reason to develop specific subject curricula since our level of education is part of the comprehensive school, which is a very democratic institution in Finland today. By revising the school curriculum, however, the TCE teaching will come out as one of the specialities offered at our school.

5. The material

In our TCE classes the teachers are also the material producers. We have used very few English textbooks over the years and the experience has not been too encouraging. The main reason is that the Finnish practice differs from both the British and the American tradition with regard to content, teaching strategies, and even the theoretical view within some of the subjects.

In mathematics, Scandinavian schools follow a German tradition which focuses on teaching thinking skills rather than the British way to learn specific strategies or to "follow trodden paths" in problem solving. In history teaching, much of the content is bound to local and national courses of events, and international sequences are to a large extent related to corresponding national events, and the effects these have on Finnish history and society. The same is true of geography teaching to some extent. When it comes to biology, the didactic approach does not differ much. We have an ecological focal point at this level, combined with a functional view when it comes to human biology. This is very similar to the approach adopted in British schools. But the biotopes discussed are not comparable with Finnish nature.

In history, biology and geography some of the curricular themes are dealt with in British schoolbooks, but a majority of our themes are absent. We have considered it a waste of resources to buy expensive books for the sake of "a few chapters". It was not until recently when

we introduced chemistry and physics as TCE subjects that we found English textbooks that met our demands. The only problem is that when everything else seems right, the language tends to be somewhat too difficult for our pupils.

British and American teaching materials are continuously being explored by the TCE teachers, and whenever we find useful material we use it as a source of inspiration for the creation of our own teaching material.

In biology and geography I use the Swedish textbooks for optional and additional reading for the pupils. Every sequence is introduced with text material, produced by myself, mostly translations from the Swedish books and/or adapted from my English "inspiration books". I also use American workbook sheets, mainly laboratory instructions and in human biology.

New possibilities have been opened up with the introduction of information technology, particularly the use of the Internet as a source of information. The school library can also be developed into a rich teaching resource the day a proper funding is reserved for this purpose.

When pupils have been consulted they clearly prefer textbooks in English to binders filled with papers of various quality. Perhaps a serious discussion is needed about the possibility to publish the material we have produced over the years in the form of English textbooks adapted to the Finnish curriculum.

6. In the classroom

The communication during the lessons and to some extent also outside the classroom takes place in English. The teacher uses English in all the teaching – when introducing new facts, giving instructions, guiding pupils in their work. When introducing new subject specific terms, the teacher makes an effort to describe words in different ways rather than using translation – in fact, the term is often new also in

Swedish. In biology I find it important that the pupils develop an adequate terminology also in Swedish. This is done by means of separate word lists and sometimes by translation (spoken, or written on the blackboard) during the lesson. Otherwise translation is never encouraged when it comes to producing texts or reading or listening to texts. Various forms of small talk between teacher and pupils are also done in English in the classroom, sometimes even outside the classroom.

The pupils' language use varies from time to time and from one pupil to another. The pupils are usually not very consistent in their use of English. Most of them turn to Swedish, particularly in social situations with classmates and often in individual guidance situations, too. Teachers respond in English also to questions asked in Swedish. When performing in smaller groups or individually in front of the class, English comes more naturally for the pupils. Pupils who have attended English schools usually stick to English in all situations. While working with authentic English material with a vocabulary that is rather complex, the pupils are encouraged to use monolingual dictionaries rather than bilingual.

Student teachers from the Faculty of Education have been offered the possibility to gain experience in teaching TCE classes. Not all, however, are willing to accept the challenge. Thus we cannot say that we provide a program specially tailored for teacher training in this field, but we offer both theoretical and practical elements of TCE to interested student teachers as well as teachers from other schools.

7. The outcomes

When evaluating the TCE classes, a central question is how well the content and language objectives are fulfilled. Unfortunately very little systematic study has focused on this question. What has been done are occasional follow-ups of the results by individual teachers and quite recently a study about the size of the pupils' English vocabulary in the TCE classes.

When checking up the level of knowledge in biology and geography I have regularly been using the same tests in TCE and regular classes. The results are very encouraging, showing good subject competence among the TCE pupils. This has led me to compare also the overall grading results within the TCE classes with the other classes in the same form. There is a clear tendency that the TCE groups are more homogenous all through junior high. However, TCE classes turned out to be slightly better than the other classes from the start. The differences between the TCE pupils and the others also tend to grow from form 7 to form 9. This has probably to do with the fact that the TCE pupils seem to have a more positive attitude to education in general, and appear to be more motivated and stimulated also in their homes. We have to remember that TCE groups are the results of an active choice on the part of the pupils, mostly encouraged by their parents.

Among the applicants to the IB program at the upper secondary school we find comparatively many of the former TCE pupils. Within the IB program we offer an introductory pre-IB year which follows the national curriculum but with all the instruction given in English. During this first year in particular, the TCE pupils have a clear advantage in being familiar with studies in English. The first TCE pupils graduated from the IB program only recently. That is the reason why no empirical study has been conducted yet about their performance through the IB years.

In 1998, the first external study was undertaken in our TCE classes. Andrea Brandao and Monica Hill, two student teachers from the Faculty of Education, undertook this study (Brandao & Hill, 1997). They looked into the English vocabulary in form 8. The TCE class and one of the regular groups were compared as to the size of specific subject vocabulary (biology and geography) and general vocabulary (by a standard test). The test was performed as a matching test. Additional background variables (reading habits, English contacts) were also studied. As expected, the TCE students showed better results in both tests. In the subject specific tests, the differences were even more obvious. In the discussion of their report, Brandao and Hill state that the results may have been affected by background variables

that were not controlled in the study. More specific results of the TCE teaching can be obtained only by more specific studies.

8. My conclusion

For the school the TCE project has been one aspect of the investment in language education according to the national goals. It has added to the profile of the school in a positive way. Naturally, there have also been problems involved, one deriving from the fact that the school is a minority language school (Swedish in Finland). Some teachers therefore argue that the efforts should be allocated to the strengthening of first language, rather than using lesson time to TCE teaching. Another problem could be referred to as "brain drain" affecting the other classes. This was more obvious during the early years. Today the TCE pupils and the other pupils in form 7 are more at the same level.

The TCE challenge has been personally rewarding to me and to other teachers involved. It is no secret that many more hours than in regular classes have been spent on planning, search for material, reading, material production, language studies and other matters connected to the assignment. But all this has also opened up new perspectives on education in general, our own subjects and their didactics, teaching methods and evaluation of the work. A more active involvement in these fields has had an overall positive effect on my career as a teacher.

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The International Baccalaureate section at Vasa övningsskola

Solveig Jungner

1. Introduction

Vasa övningsskola was admitted into the International Baccalaureate programme in 1992 and started that very autumn term with the so called Pre-IB class, which is equivalent to the first year of upper secondary school in the Finnish national education system. All of the 28 students were Finnish nationals, half of them with Finnish as mother tongue.

That same year two other Finnish upper secondary schools also started their Pre-IB classes, namely Tampereen lyseon lukio and Oulun lyseon lukio. The new IB schools were to benefit a great deal from the experiences of the already established IB sections of Helsingin Suomalainen Yhteiskoulu, Mattlidens gymnasium, The International School of Helsinki, and Turun normaalikoulu. Since the IB curriculum and syllabi differ a great deal from the Finnish national system, there was a great need to have somebody to turn to and ask for advice in all the matters that occur when implementing a new programme. For the willingness of these schools to respond and help we were all very grateful. Since 1992 Kuopion lyseon lukio has also been added to our

international family, so that at present there are 8 schools offering the IB programme in Finland. Worldwide the number is around 765 in 95 countries. About 30 000 students take the exam every year.

2. General objectives of the International Baccalaureate

The study programme leading to the examination for the International Baccalaureate Diploma is a two-year sequence for students aged between 16 and 19. Based on the pattern of no single country, the programme represents the desire of the founders to provide students of different linguistic, cultural and educational backgrounds with the intellectual, social and critical perspectives necessary for the adult world that lies ahead of them. In the Nordic countries where the upper secondary school generally follows a three-year programme, students are admitted to a so-called Pre-IB year. During this year the national curriculum is followed, but already the language of instruction is English.

At Vasa övningsskola the English language as a means of instruction is necessary from the very beginning since half of the students have Finnish as their mother tongue. Because of this our school co-operates with a Finnish school, Vaasan yhteislukio, which also provides us with Finnish mother tongue teachers.

3. The curriculum

The IB programme is displayed below in the shape of a hexagon with six academic areas surrounding the core. Subjects are studied coherently (i.e. not in modules as in the Finnish national system) and students are exposed to the two great traditions of learning: the humanities and the sciences.

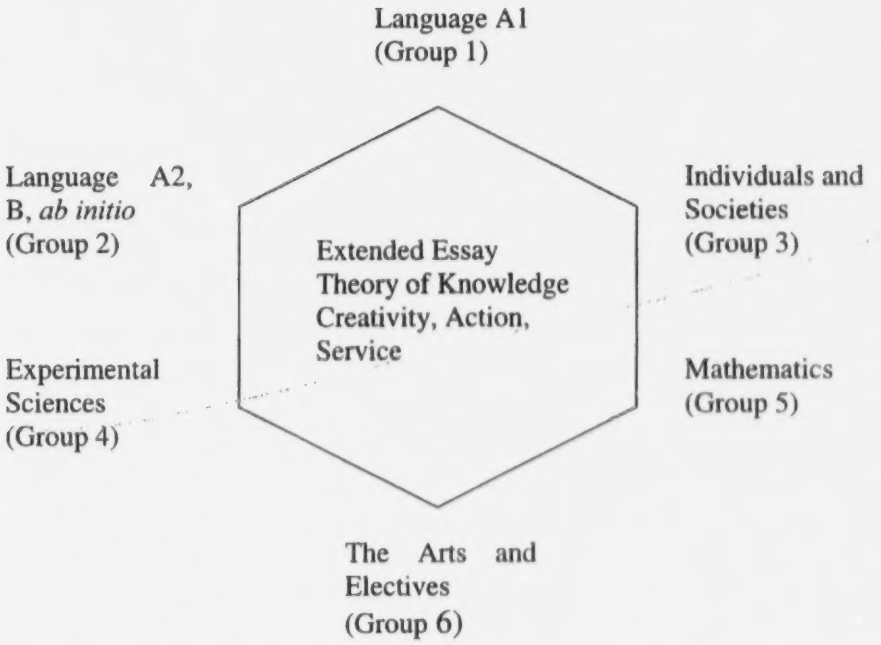

Figure 1. The curriculum of the International Baccalaureate Diploma Programme in the shape of a hexagon.

Diploma candidates are required to select one subject from each of the six subject groups. At least three and no more than four subjects are studied at a higher level (HL), the others at standard level (SL). By arranging the work in this fashion students are able to explore some subjects in depth and some more broadly over the two-year period; this arrangement is a deliberate compromise between the early specialization preferred in some national systems and the breadth found in others. More information about the programme offered at Vasa övningsskola is presented below in Table 1.

Table 1. The International Baccalaureate programme at Vasa övningsskola.

Group 1	Language A	Swedish Finnish	HL HL	SL SL
Group 2	Language B	English	HL	
Group 3	Individuals in Society	History Economics Psychology	HL HL HL	SL SL SL
Group 4	Experimental Sciences	Physics Chemistry Biology	HL	SL SL SL
Group 5	Mathematics	Mathematics Math.Methods Math. Studies	HL	 SL SL
Group 6	Options	Finnish Swedish		SL SL
Theory of Knowledge (TOK) Extended Essay Creativity, Action and Service (CAS)				
Extra: German and French (Finnish national system)				

In *languages*, both in mother tongue (lang A) and in foreign languages (lang B), literature plays an important part.

In mother tongue both national and world literature is dealt with at great length. Novels, dramas and poems are read and analyzed, dramatized, discussed, dealt with in written commentaries etc. In all languages there are also oral tests, which account for 25% of the final grade. In mother tongue the orals are based on some of the books in prescribed book lists.

In the *humanities*, which at Vasa övningsskola are History, Economics and Psychology, all kinds of written production and reports are included, thus preparing the student for future academic research.

In the *sciences* students are required to do a lot of laboratory experiments and these are followed up by written lab reports. Laboratory experiments cover as much as 25 % of the teaching time. Our school is lucky to have three separate and well-equipped

laboratories; one for Physics, one for Chemistry and one for Biology. The whole school benefits from these laboratories and they have also inspired teachers to do more laboratory work within the national programme. In order to enhance co-operation and understanding between the sciences, all students are at one time during their IB years engaged in a science project, which also contributes to their final grade.

There are different levels and programmes of *mathematics* within the IB programme. Vasa övningsskola offers Mathematics HL, Mathematical Methods SL and Mathematical studies SL to provide for the different needs of the students. As opposed to the national programme all IB students have to take an exam in maths, which of course is the reason why it is important to be able to offer different levels.

In the middle of the hexagon presented in Figure 1 above are words such as *Extended Essay, Theory of Knowledge* (TOK) and *Creativity, Action, Service* (CAS). These are really the core of the programme. *The Extended Essay* is a piece of work of 4000 words; a project which offers the opportunity to investigate a topic of special interest and which acquaints the students with the kind of independent research and writing skills expected at university.

Theory of Knowledge (TOK) is a required interdisciplinary course intended to stimulate critical reflection upon the knowledge and experience gained inside and outside the classroom. TOK can be said to be the key element in the educational philosophy of International Baccalaureate Organization (IBO), in "educating the whole person" (as stated in the general guide to the IB programme). It is also a subject that is very much appreciated by our students, which can be seen by their activities in arranging annual seminars around issues in TOK with our neighbouring school, Östra gymnasieskolan, which is right across the Gulf of Bothnia in Umeå, Sweden.

CAS stands for *Creativity, Action* and *Service* and constitutes a fundamental part of the IB curriculum. In CAS the importance of life outside the world of scholarship is taken seriously to provide a

counter-balance to the academic programme. Participation in theatre productions, sports and community service activities encourages young people to share their energies and special talents while developing awareness, concern and the ability to work co-operatively with others. Our students have been involved in organizing clubs and activities for students at elementary and junior schools, they have coached young football players, assisted in old people's homes and helped out in the school library. Also, they are frequently asked to help us inform prospective students about the IB programme.

We find that our IB students have a positive outlook and always willingly respond to a request for help.

4. The International Baccalaureate examination

The exam period extends over two weeks. For the northern hemisphere the exam period is in May and for the southern hemisphere in November. There are a number of differences with the Finnish Matriculation exam, and a few of the most obvious ones will be mentioned here.

The written exams are marked by examiners all over the world and are not graded, nor even seen, by the regular teachers of the school. The results of the exams are sent to the Examinations Office (IBCA= International Baccalaureate Curriculum and Assessment Office) in Cardiff, Wales, where all the material is gathered and the results are issued on July 7. This date is much later than the date when the results of the Finnish national exam are issued and we are always in a hurry to get the results to the universities that our students have applied to.

The fact that the examination is so late in the school year means that the IB students do not get as much time to study for the different entrance tests to Finnish universities as their Finnish peers do. Still, our students have managed well in regard to university entrance both in Finland and abroad.

5. Experiences of the IB programme at Vasa övningsskola 1992-98

Four times already we have had students taking the IB exam, and every time with better results. In the spring of 1998 our 24 candidates passed the exam with flying colours; they achieved an average of 37 points of a maximum of 45. One student scored the maximum 45 points and 6 others reached 40 or more points. The result is a good bit above the world average. The minimum points to earn the diploma are 24.

The assessment for the IB exam is criteria-based, but still the percentage of failure worldwide is usually around 25. So with this in mind our school, as well as the other Finnish schools have always been at the top.

Students are selected before admittance to the IB programme, which is, of course, one factor to take into consideration when looking at the results. On the other hand, it is important to point out the fact that most of our students come from municipalities around Vasa and have no international background. The academic tradition is not necessarily in their families either. Therefore, we are proud to see that they have been doing well and have got into universities both in Finland and abroad. In fact, we received a most encouraging letter the other day from the principal of one of the colleges in Oxford. In the letter one of our IB graduates was praised for outstanding results in his First Public Exam and was predicted a brilliant future. It felt good, of course, to read those lines.

6. Visions for the future

We feel that the situation is stable regarding the implementation of the programme and so is the teacher situation. Of course finances limit some of the things we would like to do. It would be good to be able to offer both French and German as IB languages, but so far the students wanting to study these languages have been taught according to the national programme with the other students of the school. This means that they have not taken the IB exam in these languages.

Another dream would be to be able to combine the existing Art- and Music programme of the school with the IB programme. But this, again, is a matter of funding.

It seems that more and more universities in Finland have got deeper insight into the academic character of the IB programme, and thus are willing to negotiate better conditions for university admittance and also to give some credit for the HL subjects the students have studied or for an excellent Extended Essay.

One thing that the school is working on is the integration of the IB students into the school. Especially the Finnish students need support and encouragement when they start studying in English in an otherwise Swedish-speaking environment. Student tutor groups have been formed to aid new students to settle in, and later with their choice of subjects. Right now it is one of the main concerns of the school in co-operation with the Parents Association to find ways of strengthening the tutor programme. We are grateful to have active support from the parents, because it is our firm belief that it is through co-operation between the students and their homes and the school that we stand on solid ground and can look confidently into the next millennium.

Part II

Some experiences of English content instruction

Fairy tales as tools to improve vocabulary?
A vocabulary test with 6-8 year-olds within a TCE programme

Mikaela Björklund & Anna-Brita Slotte

1. Introduction

The results of the vocabulary test presented in this article are part of an ongoing study of the use of fairy tales, or rather other material with the same structure as fairy tales, among 6-8 year old children within the TCE (Teaching Content through English) programme at Vasa övningsskola. The TCE programme is presented very briefly below; for further details see Slotte in this volume. Vocabulary acquisition is only a small part of the possible benefits of using the fairy tale as a means for elementary foreign language learning. Therefore, some other benefits relevant to the study as a whole will be mentioned before some necessary information about the premises for vocabulary acquisition is presented. The language teaching material used in this study is built up like a fairy tale and is briefly described in the methods section. The results of this small-scale study are presented and discussed in the last section of this paper.

In TCE classes language and content are closely integrated, since both are taught at the same time (Räsänen & Marsh, 1994, pp 32-36). At the English department at Vasa övningsskola content-based

instruction in English is begun in grade 1 and the aim is that pupils would use English with their teachers and peers at least 25 % of the lesson time and in socio-communicative situations inside and outside the classroom. No previous knowledge of English is required of the children who join the TCE programme. This means that the level of initial knowledge of English often differs from one child to another. The fact that the group is so heterogeneous is a challenge for the teacher, when s/he tries to ensure that communicative exchange occurs and to reduce the difficulties encountered by the children not only in understanding, but especially in producing speech in the target language (Artigal, 1991). To minimise these problems it was decided that the pupils in grades 1 and 2 would be given formal instruction in English once a week. However, one major problem remained. How does one teach English in a meaningful way to children with a very heterogeneous knowledge of the target language and of whom some do not yet know how to read and write in any language?

In the early 90s, the Swedish-speaking television in Finland (Finlands Svenska Television) broadcast 'Muzzy in Gondoland', a language course produced by the BBC. Some parts of the course were recorded by a teacher at Vasa övningsskola and the children in grades 1-2 were able to get acquainted with it. When watching the programmes some of the children began repeating phrases and most of them seemed very anxious to watch more.

When studying the material from a teacher's point of view we realised that it had a structure that resembles that of the fairy tale. We believe that this structure appeals to children and inspires them to learn without even being aware of it. Therefore, the material 'Muzzy in Gondoland' is now being tested and evaluated in an ongoing study to find out whether it can be considered as a useful teaching material. Thus, the aim of the study is to find out what the advantages versus disadvantages of the material are when teaching English to pupils aged 6-8 within a TCE setting. The specific aim of the small-scale study presented in this article is to find out what kind of vocabulary the children involved in this study knew initially and what they had learned from 'Muzzy in Gondoland' after two terms of using the

material. We consider inclusion of the word in the long-term memory as successful vocabulary acquisition.

2. Theoretical background

The fairy tale

Since we claim that the material we study, 'Muzzy in Gondoland' has the structure of a fairy tale, we want to discuss what is said about the fairy tale itself, its importance to children and why it could be a successful means in teaching a foreign language to young learners.

The presumably oldest type of fairy tales is the folk tale. The structure of newer fairy tales is, however, more or less the same as in the old folk tales and, therefore, we have chosen to refer to sources concerned mainly with folk tales. The theories about the folk tales expressed in these sources we thus apply to modern fairy tales as well, as far as structure and purpose are concerned. Two main characteristics of the folk tale are that it a) is multi-episodic and b) has an optimistic ending. It is, according to Furuland, Linberger & Ørvig (1979, p.104) a kind of "adventure-story which has a formalistic, but tension building plot" (authors' own translation). The folk tales might differ from each other, but they all share the same formalistic possibilities and limitations, which permits fantastic journeys and transformations, while the logical system of actions keeps the boundaries clear.

At times it has been argued that folk tales are not suitable readings for children because of the sometimes macabre contents. However, Egan (1995, p. 44) argues for the use of folk tales and other stories in primary education, claiming that stories can be seen as a way of making new knowledge meaningful and engaging for the pupils.

Also arguing for the benefits of folk tales as children's literature, Edström writes: "[n]o type [of literature] has meant so much to

children's stories as the folk tale" (1980, p. 19, authors' own translation). Edström (1980) stresses the following five points:

> 1) The stress is on the action. The dispositions of the characters are showed in their deeds. Hence, the deeds are accentuated and exaggerated, to make the dispositions of the characters evident.
> 2) The certainty of the optimistic end makes the, often tragic, interventions easier to manage.
> 3) The sharp contrasts (lucky-unlucky, good-evil, black-white) make the tale clear and easy to understand.
> 4) The folk tale does not contain anything uncertain. All elements of the tale help to build up the story; there are no "loose ends".
> 5) The structure is firm and clear, but not rigid. In fact, the firmness of the structure helps to bring out the deep mysteriousness of a good folk tale, or any fairy tale for that matter.

These five points are, we believe, also the very essence of the fairy tale. The points (perhaps with the exception of point 1) are furthermore of great importance when trying to convey any kind of messages clearly. Hence, they can be seen as useful tools in the teaching and learning process.

According to Bruno Bettelheim (1982), the plot of the folk tale is a psychological drama concerned with the elementary needs of mankind. In that respect it is also important reading for children. Walter Scherf (in Edström, 1980) also points out that the hero motif provides children with a model for mental growth and emancipation from the family. Edström (1980) mentions that everyday stories deal with vital questions and problems of life, but in our opinion these kinds of questions are also dealt with, in a more symbolic way, in the folk tale and other stories with the same structure. This is most evident in the strong elements of contrast and drastic effects, which at all times have captured and shocked readers. The capturing effect of the folk tale is probably one of the reasons for the productivity of its structure. Zacharias Topelius and Hans Christian Andersen adopted it in their times and e.g. Astrid Lindgren has used it more recently.

Mona Leo (1975) claims that the use of folk tales among children is more important than ever, since people are losing contact with nature, themselves and the meaning of life in the fast-track society of today. She has found that folk tales contain a fantastic, ancient world of symbols, which can help us to discover the essence of form and humanity. This, however, does pre-suppose a certain approach to life; an approach which states that life has a non-material goal and that we humans search for wisdom in order to find our true personality.

In today's society where there is a constant lack of "time", Leo (1975) finds that, at least for children, a visual presentation of folk tales, e.g. in the form of puppet theatre, is most effective. Children identify with the main character/s and in that way they learn "through experience". Since the folk tale is not "for real" it makes it easier for children to identify the dilemma and solve it in a constructive way. This process prepares them to handle similar conflicts in a more mature way later on in life. Leo in her work presented the folk tales in the mother tongue of the children. Later on in the ongoing study, we hope to find out whether or not children learn as much about these basic human concepts if the story is presented in L2 (second language).

Above we have tried to point out what children will learn from their encounters with folk tales and other stories with the same structure and purpose. The gains mentioned above alone could be seen as reason enough to use fairy tales in SLA (Second Language Acquisition) with young children, even though none of the gains are directly connected to foreign language learning. Shanahan (1997), however, claims that literature truly belongs in and is an important part of SLA. According to Shanahan, "[l]iterature is one of the forms of language that most calculatingly plays upon affect as an inducement to communication"(p. 168). Also, teachers know that affective factors play a major role in SLA, as indeed, in all successful teaching and learning, even though it has not yet been established exactly how. Furthermore, Shanahan writes that literature "often provides the exposure to living language that a FL [Foreign Language] student lacks"(p. 168) at the same time as it mirrors the culture in which and/or the era when it was written. Shanahan (1997) claims that literature can function as a "third place" in SLA. This "third place" is

"a kind of neutral ground that the learner must discover for him or herself in order to arbitrate between the familiar world of the native tongue and the new world of the FL" (Shanahan, 1997, p. 168). Shanahan is mainly concerned with written literature for older and more advanced learners, but he also mentions that, in his own experience, he has found that other media, like the television, are useful, especially for the learning of younger children. Hence, orally and visually presented folk tales and other kinds of literature may well fill the same affective, cultural and linguistic purposes as written literature, especially among young learners, who do not yet read in any language.

Also, Williams (1995, p. 304-305) mentions some reasons why stories are a good means to use when teaching a foreign language to children. She claims that the form of cognition offered in stories is readily and naturally used by children. In other words, one could say that stories represent a useful way of learning and remembering new ideas. Williams further argues that by offering means of communicating messages, stories can help children focus on the structure of the FL. Furthermore, stories put language into context and employ a mode of discourse familiar to children.

Vocabulary acquisition

The points mentioned above about the structure of folk tales and other stories are closely connected to the principles of vocabulary acquisition, which we intend to present in the following. In this section no distinction is made between learning and acquisition, since it is believed that both processes follow the same pattern.

Let us begin with some theoretical justifications (there are also pragmatic ones, which are mentioned in the methods section) for choosing vocabulary as the primary object of this small study. Gass & Selinker (1994, pp. 270) claim that the lexicon has not been paid enough attention in SL research. They base their argument on the fact that SL learners generally make many more lexical than grammatical errors. Furthermore, it seems that the choice of appropriate vocabulary

is much more crucial for the understanding of a sentence than grammatical correctness. The role of vocabulary is especially important for oral comprehension (Gass & Selinker, 1994, p. 271). Wallace (1984, p. 9) expressed the dilemma of many learners, when he noted that "not being able to find the words you need to express yourself is the most frustrating experience in speaking another language". Wilkins (1972, p. 111, in Lessard-Clouston, 1996, p. 97) went even further in his claim that "while without grammar very little can be conveyed, without vocabulary *nothing* can be conveyed". The above mentioned points are all fairly obvious, but nonetheless they are of the outmost importance to language learning.

In the following we will turn to the actual process of vocabulary acquisition. Brown and Payne (1994, in Hatch and Brown, 1995, pp. 373) have developed a five step model for vocabulary acquisition: (1) encountering new words, (2) getting a clear image of the words, (3) learning the meaning of the words, (4) connecting the forms and the meanings of the words, and (5) using the words. Below we will explain these steps shortly and see how they connect to the fairy tale.

The first step concerns availability and opportunity of input. It seems obvious that the more input learners are exposed to the more vocabulary they learn. Reality is, however, more complex than that. For example learners' natural interest and actual need make a difference in whether or not encountered words are learned (Hatch & Brown, 1995, p. 373). Fairy tales are known to capture children's interest and can therefore be considered a good source of L2 vocabulary input.

The second essential step in vocabulary acquisition is getting a clear image, a visual and/or auditory image of the new word. This is important, since human memory works through association. In other words, one associates new words with something already known, either in L1 (first language) or L2. Fairy tales can be used in many different ways, which makes it impossible to claim that they would always provide a clear picture of the new word. What can be determined, however, is that the fairy tale read, retold or dramatised in a good way will provide learners of any age with this clear image.

The third step in vocabulary learning is the one traditionally referred to when talking about vocabulary learning. It is also the vaguest of the five steps in the sense that the meaning of the word 'meaning' is debatable. Hatch and Brown (1995, pp. 382-383) note that language learners usually develop their vocabulary beginning with more general words and eventually progressing to more specific. On the basis of this observation they develop the idea that the 'meaning' of a certain word is different at different age levels and as far as L2 is concerned at different levels of interest and need. For instance, an English-speaking child can be considered to know the meaning of the word 'dog', even though s/he might use it when looking at a wolf. A grown-up English native speaker, on the other hand, is not considered knowing the word 'dog', when naming a wolf 'doggie' (unless s/he is talking to a baby). The preference of different kinds of dictionaries at different stages of L2 acquisition also says a lot about the development of vocabulary meaning.

> There seems to be a natural progression in the type of dictionaries or glosses that learners prefer. They seem to go from picture dictionaries, to bilingual dictionaries and then to monolingual dictionaries and thesauruses. (Hatch & Brown, 1995, p. 383)

As far as the development of meaning is concerned, the fairy tale can be considered an extremely suitable medium, since it, according to Edström (1980; discussed above), does not contain anything superfluous, but often contains strong contrasts and a well known structure, helping learners to decode the meaning of unknown words. Fairy tales are often presented visually one way or another (e.g. as picture books, puppet theatre, animated video). This makes it easier for young children who do not yet read both to get an image of the word (form) and to develop an understanding of it. Fairy tales are probably of most use to children (or other learners) at the "picture dictionary level". On the other hand, one should not forget that fairy tales originate in oral tradition and, hence, can be developed into linguistically very complex stories.

The fourth necessary step in Brown and Payne's model is that learners make a strong connection between the form and the meaning of words

in their memory. This step is, for example, necessary to avoid lexical errors and mistakes with orthographic or phonological "false friends", but it can also be seen as simply the stage where one makes the new word stick in memory. Hence, you do not learn the meaning of new words by using techniques like mental images and drills, but these techniques help you remember their meaning and form. The structure of the fairy tale does not guarantee that this step is successfully managed. Just as in step two, it is more a question of how one goes about presenting and using the fairy tale than a question of how the structure of the story contributes to the learning process.

The fifth step, using the word, could easily be seen as just one of the techniques used in step four. It is, therefore, important to stress the fact that there is a deeper dimension of 'usage' added into this step than into the preceding ones. This step is essential if the learner is to be helped to "move as far along the continuum of word knowledge as they can" (Hatch & Brown, 1995, 390). To achieve this, the new word has to be put into context independently by the learner. For this process, again, the fairy tale is excellent. It provides learners with topics to retell, discuss, perform, and develop. Thus, the structure of the fairy tale provides good prospects for encountering new words, learning their meaning and using them successfully. Nothing in the structure of the fairy tale makes it more difficult to get a clear image of new words or to connect the form and meaning of the words in memory. Hence, the fairy tale can be seen as a very suitable material to use for vocabulary learning, particularly with young children who are just beginning to learn a FL.

3. Methods

The material 'Muzzy in Gondoland' (hereafter referred to as Muzzy) was considered a suitable material for this study, since it is built up like a fairy tale, but also contains language exercises. This means that Muzzy fulfils all five criteria in Brown and Payne's model and should be an excellent material for vocabulary learning.

The language course Muzzy consists of a video cassette, a teacher's guide including a full video script, full-colour pupils' material, a workbook and an audio cassette. The video cassette combines a cartoon story with a controlled language course designed to help children learn English. The video cassette can be used, with the help of the teacher's guide, either as a supplementary material for a course already in use or as a main teaching source. It can be used to present new language, to revise, practise or extend known language, or simply to provide useful, comprehensible and stimulating listening practice for learners. The teacher's guide is written to help teachers who have never worked with a video cassette before and those with more experience who would like to broaden their range of alternative exploitation and teaching techniques. It explains in detail practical ideas to help the teacher use Muzzy in the classroom. The teacher's guide is being used in the ongoing study at the English department of Vasa övningsskola to ensure, as far as possible, that the effects of the language course are not due to the teacher's experience of language teaching, but to the language course itself.

To find a starting point for the study a small (in the sense non-exhaustive) test in English was made with all (n=17) the learners in class 1-2 at the English department at Vasa övningsskola. The same test was used both as pre-test and post-test. The pre-test was conducted in September 1997 and the post-test in late May 1998. During that period of time the pupils attended one lesson a week during which Muzzy was used. These lessons were planned in accordance with the guidelines given in the teacher's guide.

In constructing the test, we immediately met with an obvious, but none the less serious problem: how can we construct a relevant and valid test for children who cannot read or write, and of whom some know almost no English at all? We found that testing vocabulary was the easiest way to get an idea of how much of the vocabulary related to Muzzy the children knew initially and what they learned by working with the material. The motives for this choice are found below.

The test (see appendix 1) was divided into ten parts, namely: introduction, numbers, greeting, commands, identification of some objects, parts of the body, prepositions, can/can't, present continuous and rooms (vocabulary). These parts were further divided into forty different items.

Outline of what was tested (-) in the different parts of the test and what kind of an answer was expected (->):

1) Introduction:	- phrase - letters of the alphabet - age -> verbal response to spoken phrases
2) Numbers:	- numbers 1-10 -> verbal response to visuals
3) Greeting:	- phrases -> verbal response to phrases
4) Commands:	- selected phrases -> physical response to spoken phrases
5) Identification:	- selected vocabulary (nouns) -> verbal response to visuals
6) Parts of the body:	- vocabulary (nouns) -> verbal response to visuals
7) Prepositions:	- vocabulary (prepositions) -> verbal response to visuals
8) Can/can't:	- verbs -> verbal response to spoken question.
9) Present continuous:	- present continuous - verbs -> verbal response to visuals and spoken question
10) Rooms:	- vocabulary (nouns) -> verbal response to visuals and spoken question

In parts 2, 5, 6, 7, 9 and 10 of the test visual aids were used to minimise the effects of the illiteracy problem. Vocabulary was, of course, only one of the things we hoped the pupils would learn during the Muzzy sessions, but at the same time it was the area easiest to test, since we could choose vocabulary specific to Muzzy. What we couldn't control fully, however, was the influence of incidental learning during the period of time between the pre- and post-test.

The test procedures were as follows: the teacher told the class that there was an English-speaking person in the nearby room who wanted to see each of them separately. She stressed that the interviewer was a friend of hers, that she spoke only English and that if they didn't understand what the interviewer said, they only had to shrug their shoulders to make her move on. During the test situation expressions like 'that's all right', 'never mind', 'very good', 'that's right' etc. where used to increase the feeling of informality and non-hostility. The decision not to let the teacher herself do the interviewing, was based on the following two factors: a) she knew the pupils so well she would probably not be able to give everyone of them the same "treatment" and decide objectively, and b) the pupils knew her well and would probably be able to interpret a lot from her body language. These two factors we wished to eliminate. During the pre-test body language was intentionally used by the interviewer in part 8, but was otherwise kept at a minimum. During the post-test body language was kept at a minimum at all times.

The test results were coded on SPSS and Chi2 estimated. The language backgrounds and the sex of the pupils were also coded. The answers of the respondents were coded into whether they managed to produce what was asked for (1) or not (2).

4. Results

There were no significant correlations between the variables grade, language, sex and the variable test. Chi2 was also estimated for the variables grade and language which produced statistically significant differences (p=.05) on a few stray items. These items were, however,

so few that they were considered to be of no further importance in this case. For the variable test, on the other hand, there were significant differences in numerous cases, even though the studied population was very small and the test suffered from some methodological lapses, which will be discussed later in this chapter.

Of the forty items included in the test, two were not possible to analyse. They contained many missing values, since they were used as models in the pre-test (for details see appendix 3). These items were the first item of part 6, i.e. parts of the body, and the first item of part 7, i.e. prepositions. The remaining 38 items were divided into two groups: group A (18 items) for which a statistically significant or almost significant improvement had taken place ($p. < .05$, except in one case: $p=. 078$) and group B (20 items) for which no or almost no change had taken place. Of the 18 items on which the respondents improved, nine were also statistically reliable, in the sense that the minimum expected count was higher than 5. The remaining nine items contained expected counts as low as 3.0, but the results are, nonetheless, considered to be of interest here.

The types of items belonging to group A are (see appendix 2 for complete results): prepositions (5), selected vocabulary from part 5 of the test (4), parts of the body (3), introduction phrases (2), commands (2), one greeting phrase and the word 'bedroom'. The range of the items belonging to this group shows that Muzzy has had a powerful impact on the expansion of the vocabulary of the respondents. This impact does not seem to be of the temporary kind, considering the fact that the words and phrases of group A comes from all of the parts of Muzzy that the class had gone through during the year (parts 1-3), with two exceptions. These two exceptions are the phrase 'stand up' and the word 'bedroom', which are dealt with in parts 6 and 5 of Muzzy. These two items are, hence, proof of other influence. 'Stand up' is a frequently used classroom phrase and 'bedroom' is an example of incidental learning out of class, since that word has not yet been used in the classroom.

The great number of items (20) for which no or almost no change had taken place seemed very discouraging at a first glance (appendix 3).

On a closer look, however, these items reveal important information about Muzzy and the pupils involved in this study. Three of these items remained constant, for the simple reason that all of the pupils knew them already in the pre-test. All respondents understood and answered when asked for their name and they also reacted correctly on the commands 'stop' and 'come here'. For five more of the items a small (not statistically significant) improvement was noticed. In this case almost all of the pupils knew them already in the pre-test and everybody in the post-test. These items were: numbers 1 to 10, numbers 2 and 7 (the children were asked to identify them on the basis of a picture), 'cat', 'hand' and 'sit down'. This result shows that the respondents were familiar with some of the vocabulary in Muzzy before they started using it and that Muzzy filled its purpose for those who lacked some "basic" skills. It is worth mentioning that all of these items except the numbers were words or phrases, which resemble the Swedish equivalents.

For six items the result deteriorated or remained constant for various methodological or other reasons. One of the reasons was that the gestures were left out in the post-test, which made four of the items (can/can't see, jump, swim, fly) more difficult in the post-test than in the pre-test. Another item became too difficult when vocabulary was changed. In the command 'look at the apple' the word 'apple' was changed to 'tomato' (because of unhappy circumstances), which wasn't familiar to the respondents. The last item in this group was the greeting phrase 'good morning', which all but one (94%) responded correctly to in the pre-test. In the post-test, however, only 82% (14) answered correctly. This deterioration was probably due to boredom.

The remaining six items (present continuous and room vocabulary) are dealt with in part 4 and 5 of Muzzy which the children had not yet seen. Hence, it was not surprising that no change had taken place between the pre- and the post-test. The reason items like these were included in the test is quite simple. We had no way of knowing how fast the pupils would proceed through the material. Therefore, we chose rather to include too much than to little.

5. Conclusion

This test was not designed to show whether or not the level of difficulty in Muzzy was too low for the children in the TCE class. Still, the results of the test urge us to address this issue. To begin with, all the children improved their results in the test (i.e. everybody learned something new). Considering the reasons why no improvement had taken place in the latter group of items described above, it is possible to claim that Muzzy did, indeed, have a positive and lasting impact on the vocabulary of the learners involved in the test. Hence, the results indicate that the level of difficulty in Muzzy, as far as it can be decided on the basis of a test like this, seems to be appropriate. Most of the pupils were familiar with some of the vocabulary and, what is even more encouraging, the ones who were not still seemed to be able to 'get a hang of it', since they learned as much as the other pupils, if not more. Furthermore, the children really enjoyed their lessons with Muzzy. This became evident in class, but also in the post-test, during which they all reacted positively in one way or the other to the visuals taken from Muzzy. The visuals not taken from Muzzy did not evoke the same positive reactions.

As far as it is possible to determine with a crude instrument like the one used in this study Muzzy is a suitable material for vocabulary learning at a primary level and with a heterogeneous group of children. Since Muzzy seems to be a successful means for vocabulary learning, we will continue the study to find out whether or not Muzzy is a teaching material that fulfils other purposes of literature in language teaching. Therefore, we intend to modify, enlarge and deepen the study in order to find out more about the complex issues involved when using fairy tales and other stories in foreign language teaching.

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APPENDIX 1

Outline of the test:

1)
Interviewer: 'Good morning!'
Respondent: 'Good morning!'
I: 'How are you (today)?'
R: 'Fine, thank you'/ 'Fine, thanks'/ 'Fine'(or other acceptable answer).

2)
I: 'My name is Mikaela. What's your name?'
R: (his/her name)
I: 'I spell my name m-i-k-a-e-l-a. How do you spell your name?'
R: (spell their name out)
I: 'I'm 24 years old. How old are you?'

3)
I: 'Can you count to ten?' (Points at a sheet with the numbers 1-10) One... (points at two, and so on)
R: (counts aloud)
I: 'Now, what number is this?' (points at 2) 'And this?' (points at 7)
R: (answers one at a time)

4)
I: 'Now...' (looks at the pupil and gives model second time, if the question is not understood. Model is given only on the first command.)
'Stand up, please!'
'Go away!'
'Stop!'
'Come (back) here!'
'Sit down, please!'
'Look at the apple!'

5)
I: 'What is this?' (question repeated at each picture)
R: 'Clock', 'cat', 'bell', 'cake', 'space-ship'

6)
I: 'This is my nose. Where is your nose?'
R: (points)
I: 'Now, where is his (points at boy picture) head, leg, hand, eye?' (one at a time)

R: (points)

7)
I: 'The man is in the box. Where is he now?' (points at pictures, one at a time)
R: 'On', 'under', 'in front of', 'behind', 'between'.

8)
I: 'I can see the apple.' (looks at the apple) 'Can you see the apple?'
'Can you jump?' (bounces up and down on chair)
'Can you swim?' (imitates breast-strokes)
'Can you fly?' (imitates bird)
R: 'Yes'/ 'No' or nonverbal (although 'I can' and 'No, I can't' were expected)

9)
I: 'He is eating.' (points at picture) 'Now, what is he/she doing?' (repeated for each picture)
R: 'drinking', 'sleeping', 'eating'

10)
I: 'What room is this?' (points at picture)
R: 'bedroom', 'bathroom', 'kitchen', 'living/sittingroom' ('TV-room' was not accepted)

11)
I: (Puts on recorder and picks up cuddly toy) 'This is my favourite toy. His name is Hugo (the hedgehog). Do you have a favourite toy?'
R: (responds as pleases)
I: (follow-up questions) 'Is it a dog/cat? ...big/small?(shows)
...black/white/brown?'
'Do you have any brothers or sisters? ...older/younger?'
'Do you have a special hobby?'
What do you do after school?

I: 'Thank you very much!'

APPENDIX 2

The tables below include the number of missing values, level of significance and minimum expected count for each item, which was judged to have significant (≤ .05) or almost significant differences between the tests.

BODY (Pearson Chi2, n=17)

Item	Missing value	Level of sign.	Min. exp. count
Head	0	.007	4.50
Leg	0	.016	8.50
Eye	0	.015	4.00

COMMAND (Pearson Chi2, n=17)

Item	Missing value	Level of sign.	Min. exp. count
Stand up	0	.003	3.50
Go away	0	.007	3.00

GREET (Pearson Chi2, n=17)

Item	Missing value	Level of sign.	Min. exp. count
How are you	0	.015	5.50

IDENTIFY (Pearson Chi2, n=17)

Item	Missing value	Level of sign.	Min. exp. count
Clock	0	.015	4.00
Bell	0	.016	7.50
Cake	0	.016	8.50
Space-ship	0	.000	7.00

INTRODUCTION (Pearson Chi2, n=17)

Item	Missing value	Level of sign.	Min. exp. count
Spell you name	0	.010	5.50
How old are you	0	.026	3.39

ROOM (Pearson Chi2, n=17)

Item	Missing value	Level of sign.	Min. exp. count
Bedroom	0	.004	6.00

PREPOSITIONS (Pearson Chi2, n=17)

Item	Missing value	Level of sign.	Min. exp. count
On	0	.015	4.00
Under	0	.078	6.50
In front of	0	.000	5.50
Behind	0	.024	5.00
Between	0	.000	4.50

APPENDIX 3

The tables below contain the number of missing values for each item which did not show a significant increase and the percentage of respondents who answered the item correctly in each test.

BODY (n=17)

Item	Missing values	Pre-test	Post-test
Nose	7	80 %	100 %
Hand	0	94 %	100 %

CAN/CAN'T (n=17)

Item	Missing values	Pre-test	Post-test
See	1	94 %	88 %
Jump	0	94 %	94 %
Swim	0	94 %	94 %
Fly	0	100 %	88 %

COMMANDS (n=17)

Item	Missing values	Pre-test	Post-test
Stop	0	100 %	100 %
Come here	0	100 %	100 %
Sit down	0	88 %	100 %
Look at the apple/tomato	0	77 %	71 %

GREETING (n=17)

Item	Missing values	Pre-test	Post-test
Good morning	0	94 %	82 %

IDENTIFICATION (n=17)

Item	Missing values	Pre-test	Post-test
Cat	0	82 %	100 %

INTRODUCTION (n=17)

Item	Missing values	Pre-test	Post-test
Student's name	0	100 %	100 %

NUMBERS (n=17)

Item	Missing values	Pre-test	Post-test
1-10	0	94 %	100 %
2, 7	0	88 %	100 %

PRESENT CONTINUOUS (n=17)

Item	Missing values	Pre-test	Post-test
Eating	0	35 %	24 %
Drinking	0	41 %	29 %
Sleeping	0	24 %	29 %

ROOMS (n=17)

Item	Missing values	Pre-test	Post-test
Kitchen	0	18 %	24 %
Bathroom	0	12 %	12 %
Living-/ sittingroom	0	0 %	0 %

PREPOSITIONS (n=17)

Item	Missing values	Pre-test	Post-test
In	16	100 % (1 person)	88 % (15 persons)

Science teaching through English

Ole Björkqvist

1. Introduction

In the English-speaking world, teaching science takes on quite different characteristics than in Finland. It usually appears in the curriculum as an easily identified and undifferentiated subject from the early years all the way into high school /secondary school, where courses in specific scientific disciplines appear. Science is usually also considered a core subject, the importance of which may be compared with that of English, history and mathematics. In Finland, science remains a minor subject, at least in terms of the number of lessons per week. The Anglo-American emphasis on concepts and processes in science differs quite clearly from the traditional Finnish emphasis on subject matter.

2. Integrated science teaching

In Finland, the idea of integrated science clashes with the traditional arrangement where one teacher has the responsibility for teaching physics and chemistry, and a completely different teacher has the responsibility for biology. Furthermore, there is usually little clarity

about the place for earth science, meteorology, and other science disciplines that do not have their own status as a subject in the curriculum. Academic studies of those subjects will not give qualification to teach. This compartmentalization of science, with the ensuing neglect of important topics, has been much criticized recently, but so far the only way to counteract it is for individual teachers to transcend the borders on their own. This is often done in the form of specific projects on certain themes of science or technology.

In elementary schools, science is now formally one subject, but since its name (natural and environmental science) alludes more to the biological sciences than to science in general, and even less to physics and chemistry, the latter have had a hard time becoming accepted as important parts of elementary science. This situation is also close to the traditional view in Finland that, during the early years of childhood, biological topics are more important than those that relate to lifeless nature. A lack of teaching materials in physics and chemistry as well as a common feeling of insecurity about teaching methods add to the picture of elementary school teachers preferring traditional biological topics. Integrating science by choosing the topics for teaching without regard to traditional scientific disciplines seems, however, to be a good way of overcoming possible negative feelings about physics and chemistry.

3. An important choice

When a teacher in Finland is faced with the challenge of teaching science through English in his or her own school, the question that immediately arises is whether to do so "the English way" or not. Adopting the Anglo-American culture of science education means emphasizing an integrated view of science. It includes helping the learners in the development of concepts and mental processes that are transferable from one subject to another. Very often this is (in a rather vague way) labeled the "method of science". What to do becomes comparatively less important than how it is done. Some people would say that the Anglo-American culture of science education views children as scientists in their own right from a very early age.

The possible gains of this view have to be compared with how well it fits the Finnish school system, and with the way school achievements are measured in Finland. If the teaching of science through English aims at traditional Finnish content knowledge, the choice may be difficult enough.

It is also a matter of teacher training – the move to a slightly different philosophy of science education requires good acquaintance with that philosophy and its implications. The preparations for teaching science in a different way go far beyond adopting English as the language of instruction. If, however, the input of effort results in learning effects that are definitely positive, even when measured in the traditional Finnish ways, the change would seem worthwhile.

4. The social constructivist view of learning

A general characteristic of integrated science teaching is that its starting point is close to the experiential world of the learner, rather than to the disciplines, which are rather meaningless to the learners. This is consistent with the constructivist view of learning, which postulates that knowledge is constructed by the individual rather than transferred from one individual (the teacher) to another (the pupil). This constructive process uses previous knowledge and new experiences as its building blocks. The experiences that are relevant for the construction of scientific knowledge are not merely restricted to systematic education but may have their origin in everyday life outside school – outside the realm of scientific disciplines.

Scientific knowledge refers to knowledge about the structure of the world. The scientific knowledge of the individual differs from the "collective" scientific knowledge that has been constructed by man during centuries of inquiry. Collective knowledge is, however, built from the knowledge of individuals, and individual knowledge is shaped by the collective knowledge of previous generations through the educational process. This interaction is a cornerstone of the social constructivist view of learning.

Whether scientific knowledge corresponds to the actual structure of the world or not is a matter of belief rather than certainty. The process of subsuming new individual knowledge into collective knowledge is complex – it involves genuine breakthroughs such as discoveries and inventions as well as new interpretations of old experiences and arguments of authority. Collective scientific knowledge has never been entirely free from disputes between viewpoints, nor from interaction with, e.g., politics and religion. The social constructivist view of science accepts scientific knowledge as provisional, both at the individual and the collective level. The implication of this for education is that the process of acceptance of an argument is important as such – the criteria for quality of scientific concepts and reasoning need to be learned as part of the subject.

The teacher is the person who, by his or her position in society, is charged with the duty of making collective scientific knowledge available to the pupils. It is a position of authority, at least seen by the pupils and by society in general, but if authoritarian arguments are included in the teaching methods, it will counteract the process through which the pupils learn to rely on arguments from their own observations, explanations and predictions. These fundamental cognitive processes are part of what is called the "scientific method". Supporting their development may require the teacher to withdraw many conclusive comments and encourage hypothetical reasoning at a suitable level of sophistication. A good way of doing it is for the teacher to present himself or herself as a searcher of new knowledge, directly or indirectly through exhibition of an attitude of curiosity. "I do not know the answer to your question, but I have an idea of a good experiment that will show me" reflects this attitude very well.

5. Interaction among peers

The experiences that individuals bring to class, as well as the meanings they attach to other experiences in class, may differ from each other to the extent that communication between the teacher and the class is ineffective. While speaking to the whole class, the teacher

may be incapable of supporting the individual pupils in their construction of new knowledge, building on what is most relevant to them at the moment. In that case, encouraging oral group interaction about recent experiences may be a good means of forcing each pupil to test his or her concepts of science and to use vocabulary in a way that is accepted by the others. "Negotiation of meaning" takes place more easily in groups of equals and may function as an intermediate step to communication with the teacher. The teacher, however, would take part in this process of negotiation as far as is possible without the use of authority.

Group work without related group communication tends to put the focus on the products of the cooperative work. Talking about what you are doing – defending your choice of a specific method in an experiment or evaluating the outcome in relation to your original hypotheses – makes the work of the group a collective construction of knowledge that includes ways of reaching new knowledge in similar situations in the future. To be able to talk with your peers in a "scientific" way, you need a vocabulary that relates both to the specific experiences that the group is discussing and to the ways of stating scientific principles, describing general processes, and interpreting perceptions in relation to theoretical knowledge. The level of language will vary, of course, but it is usually more efficient not to avoid technical language in favour of everyday language. The degree of precision that can be achieved by far outweighs temporary misunderstandings.

Above all, from a social constructivist point of view, it is part of the role of the teacher to provide many examples of the use of specifically scientific language. This is part of the establishment of an experiential basis of what science is all about. Out of class, the experiences are mentally organized in ways that cannot be controlled by the teacher, but in the classroom setting, a gradual clarification of the "rules of the game" to all the players is needed.

6. The language of science as a tool

Science is concerned with human descriptions of the world and phenomena that occur in the world with or without the help of man. The senses of man are the primary scientific tools. Observing regularities in the sky was the beginning of astronomy, identifying substances by appearance, smell or taste was the beginning of chemistry, etc. Keeping track of the observations involved memorizing, listening to accounts by elders, or reading the records written down by systematic previous observers. Clearly, efficient language was an integral part of communicating the experiences in an adequate way.

It is, however, less obvious that language is integral to science in a quite different way, too. Where human senses reach their limits, science extends them by designing artificial tools such as binoculars to improve astronomy, counters to register radioactivity, or special experiments to achieve phenomena that would not occur naturally in a similar way. The scientific tools, studied as such, constitute an important part of technology. Their role as extensions of the senses of man is better described if you view technology as support for man's inquiry into the structure of the world.

Language has a similar role in the extension of human knowledge of the world. All observation takes place against a background of conceptual knowledge – it is sometimes expressed in the statement that there can be no empirical scientific work without theory. The theoretical concepts, including the terms that you use for them, guide what you look for and what you see. The examples are many, from descriptions of movements in terms of velocity to an experienced neurophysiologist identifying α-waves in an EEG. Part of the terminology of science is used in everyday life, part is highly specific, but it is all available in the formulation of new explanations and predictions.

Apart from this striving towards precision, language is available to science in the construction of new models for phenomena, very often

in a metaphoric way. In science education, this serves the purpose of associating new experiences with structurally similar experiences that may be better known, e.g., associating electrical currents with water running through pipes. In that case, a resistor will correspond to a narrow part of the pipe.

7. Using appropriate English

The importance of language to science teaching, as described above, is quite general from the viewpoint of constructivism. It is far more basic than using the structure or vocabulary of a particular language to make the pupils understand a particular aspect of science better. In English, the learning of the terminology and the notational language of physics is much easier than in most other languages (*F* stands for force, *p* for pressure, etc.). English is superior in terms of availability of accounts of phenomena and learning materials in science.

Yet, when it comes to the most important aspects of teaching science through English, they seem to be common with teaching science through any other foreign language. They are concerned with the development of the language as a tool that the pupil will use with trust. The conviction that English is a safe and useful language is a necessary prerequisite, and reassurance may be necessary again and again, especially if native language science teaching is available.

The particular constructivist viewpoint, which to a large extent agrees with the philosophy of Anglo-American integrated science teaching, puts the focus on certain special uses of English during science teaching. If chosen, this additional cultural transfer is not as far-fetched as it might have been some twenty years ago. Constructivism is now part of the philosophy of many Finnish school curricula, and regardless of central examinations that may favour another approach, more and more teachers see it worthwhile starting from the pre-existing scientific concepts in the minds of the pupils rather than from a ready-made discipline-centered conceptual structure.

With respect to the English vocabulary that should develop as a consequence of such teaching, we may identify the following necessary categories.

- Vocabulary that facilitates the negotiation of meaning of previous experiences. This includes terminology for perceptions as well as interpretations of the perceptions in everyday language, and scientific terminology normally found in everyday language.
- Vocabulary that relates to general scientific processes, e.g., systematic observations, recording data, tabulating, making hypotheses, predicting, explaining, supporting and contradicting arguments, investigating, exploring, proving, formulating a principle, etc.
- Vocabulary that extends the conceptual world of the pupils. This vocabulary may be highly technical, but its primary purpose, as described above, is to provide the pupils with additional tools to handle new experiences. From a methodological point of view, it may also make theory-driven empirical work possible and place hypothetical situations within the reach of the pupils.

The time-scale of the development of an appropriate vocabulary is that of science teaching itself. Specific attention should, however, be given to the second category, which is in itself rather limited. This "core vocabulary" is largely necessary even in elementary science teaching.

Teaching physical education through a foreign language

Thomas Friman & Jan-Erik Romar

1. Introduction

Bilingual education and content-based foreign language instruction is becoming more and more common in Finland. The Ministry of Education and the National Board of Education aims at spreading foreign language content instruction all over the country. This increased internationalization at educational institutions will make it easier for students to participate in international exchange programmes and benefit from what other countries have to offer (in Räsänen & Marsh, 1994). The teaching of physical education (PE) can help learners develop skills and abilities such as personal and social development, and knowledge of other subjects. Subjects that can be integrated into the teaching of physical education are languages, mathematics, and science. In the project described in this article, English was used for providing instruction in PE lessons, but we will also look at movement and PE as a medium of instruction in learning a foreign language.

Movement in language teaching represents a way for the learner to transform something abstract, inert and verbal into something real, vital and visual. Gildenhuys and Orsmond (1996) conclude that

movement and language development are interrelated and that movement creates meaning and gives a context for using a language. In addition, movement is universal and removes stress from language acquisition. Movement also allows the learner to experience learning as an active whole.

Gildenhuys and Orsmond (1996) undertook an action research project in South Africa where 34 black children at the age of six to eight years participated in a combined language and activity class. They found that the movement approach for language acquisition was successful and created a non-threatening environment within the social context. The teachers' personal qualities, e.g. their empathy and adaptability, facilitated in creating the learning environment, which also lowered the anxiety levels of the learners. In the initial stage, however, copying was perceived as a problem in the open-ended movement environment, because it was difficult to recognize whether or not a child was merely copying behaviors and actions without understanding the language. Interestingly, boys and girls responded differently; while girls tried to use the language, boys often attempted to give a physical response.

The IB (International Baccalaureate) Section of the upper secondary school at Vasa övningsskola is one of many places in Finland where students can receive their education through a foreign language, English (see Jungner in this volume). This paper mainly concentrates on Thomas' own experiences of teaching IB students physical education through English.[2] He taught a class of first grade IB students on three different occasions, a total of six hours. The class was a mixed group of 28 students, the main part of which was girls. Most of the students had Swedish as their mother tongue but there were also a few who had Finnish as their mother tongue. The first double lesson was about skating and the other two dealt with street basket.

[2] Thomas Friman was, at the time this study was undertaken, a teacher trainee at Åbo Akademi University, the Faculty of Education, and is one of the two authors of this article. Jan-Erik Romar was the ordinary teacher for the group of students that Thomas taught and, therefore, he supervised Thomas' teaching practices.

The students were able to reach the goals Thomas set up and they had fun at the same time. It was easy to teach this group because everyone was highly motivated and tried to do his best. In order to monitor what really happened, Thomas recorded his experiences in a diary before and after each lesson.

2. The lessons taught

Thomas describes the lessons he taught as follows:

> My first lesson was a double lesson, which dealt with skating and bandy. Some students were allowed to go skiing instead, so the group was smaller than normal. I was a little nervous at first, since I had not spoken much English since last year, when I was an exchange student in the United States of America. On the other hand, I had planned my teaching well, so I knew that everything would work out. I did as I had planned and tried to be flexible and interact with the students. I think that the students enjoyed skating and that they learned some new things at the same time. The skating terminology is difficult, but I think they learned some new words as well.
>
> In my second and third double lesson I taught street basket. As material I used a video made by the Finnish Basket Association (Suomen koripalloliitto). I found the terminology for basket in English books about the sport and on the Internet. The students had never played street basket before and, therefore, I could test whether or not they understood what I explained. The basics of street basket are that players play in teams 3-on-3 and only toward one basket. At the same time as I explained the rules, six students were demonstrating them to the others. This demonstration, I think, made it a lot easier for the students to understand the idea of triangle offence and court balance. Unfortunately, I forgot to explain one rule about going out to the starting line after taking the ball from the other team and, naturally, the students were a bit confused. But, overall they played very well. One factor

that made the teaching more difficult was that the gymnasium at Vasa övningsskola was occupied, so that we had to move to the gymnasium at the Faculty of Education, which is a lot smaller. Nevertheless, everything worked out pretty well and the students were highly motivated to improve their performance both technically and tactically. I used instruction sheets, which was a good idea, but I should have pointed out more clearly that everyone should read them before doing a task.

When planning my third lesson, I had a lot of help from the feedback my supervisor Jan-Erik Romar gave me after the second lesson. Together we had developed the exercises a little and they really worked out well. The improved exercises in addition to the fact that I was starting to get to know the group made the third lesson more successful than the other two. This time we had better facilities at our disposal, because we were able to use the gymnasium at Vasa övningsskola, which made it easier to differentiate for instance when we practised the lay-up shot. I am satisfied with what we accomplished together; the students played good street basket and their technique also improved a lot. When reflecting on my teaching, I realize that I could have been more active in play situations; I could have interrupted the game more often and given feedback on how they were playing.

3. Experiences from teaching physical education

In this part Thomas elaborates on his experiences from the lessons he taught.

Planning

The planning process before teaching something through a foreign language is more complicated than it usually is when you teach through your own mother tongue. You do not only

have the objectives of the subject to think about, you also have to think about the language objectives. Personally, I believe that physical education can make a great contribution to language development. But, good planning is often the main key to successful teaching.

When planning a lesson it is very important to know on what level the students are with regard to both physical education and language skills. Therefore it helps a lot if you can meet the group before your first lesson.

When you teach physical education, it is often very effective to give the students instructions and show them what to do at the same time. This is also true when the students are taught through a foreign language. Even if the students do not understand every word the teacher says, they can understand what they are supposed to do just by looking at what the teacher does. This means that the students do not have to have as large a vocabulary initially as in the theory subjects. Regardless of this fact, I thought a lot about how to explain the exercises so that the students would understand as much as possible on the basis of my instructions. Although my own English is pretty good and I do not have any problems speaking the language, the context specific terminology was new to me, so I had to plan carefully what to say.

Giving instructions

When giving instructions in a foreign language, the main thing you should think about is to use a simple language. If the instructions are too long and complicated, there is a much greater likelihood that the students do not know what to do. I tried to alternate between giving instructions only and giving both instructions and showing the students what to do. I found it more effective to give instructions and show the students what to do at the same time. In addition, I tried to speak clearly and not to say very much at a time.

By keeping eye contact with your students you can easily tell whether or not they understand what you say. In my lessons I tried to interact with the students as much as possible. Just by asking a few questions every now and then you can make sure that the students are listening to what you are saying. It is important, however, that you wait until all the students are close enough to hear what you are saying. The only time I found that they had some problems to understand me was when I taught them some tactics about how to play offence in street basket. There are two different kinds of drills, "give and go" and "the backdoor". These are, however, pretty advanced, so it is quite natural that they were difficult to understand. I even think that the students would have had problems, even if they had been taught the drills through their mother tongue. I tried to reduce the difficulties encountered by the students by providing instruction sheets at every work station, but some problems still remained.

Feedback

It is very important to provide feedback when you are teaching. A few simple words from the teacher or a peer can be enough to motivate a student to continue with a task. I think that by giving a lot of positive and constructive feedback you can make a student try harder and also learn more. If a student does not know what he is doing wrong it is much harder to improve a performance. When planning a lesson it is also very important to consider what to evaluate. I tried to give a lot of feedback to the students both as individuals and as a group. The students of this group were on different levels and, therefore, I tried to give more individual feedback. The students reacted positively and wanted me to give feedback on their performance. To give feedback in a foreign language is hard, especially when it comes to specific feedback on different techniques. Therefore, it is very important that you as a teacher know the relevant vocabulary.

Organization

The group I taught was quite large and, therefore, I had to plan carefully how to organize my teaching. Especially at the time of transition from one task to another I felt I could have saved a lot of time by adequate planning. Because of the size of the group, I found it best to divide the students into smaller groups. At the same time I tried to form homogeneous groups, since they make it more fun for everyone and gives every student an opportunity to learn something new. Organizing a group in a foreign language can also cause problems if you have not planned how to do it. Again, it is very important that you know the right terminology. In physical education, however, it is to some extent easier than in other subjects to organize a group, because you can use sign language and the whistle to attract the students' attention.

4. Summary

Teaching physical education or movement through a foreign language is a good way to develop the language of the students. Even if they do not know all the context specific terminology, they can understand what to do by watching others or the teacher when he shows them what to do. In time, the students will learn the terminology and thereby improve their knowledge of the language. We have also noticed that it is rather easy for exchange students at the Faculty of Education to participate in teacher training classes if they can concentrate on practical subjects such as handicraft, art, or physical education.

In teaching content through a foreign language it is very important carefully to plan not only what to do but also what to say. This was one of strengths in the lessons Thomas taught. The Internet and WWW are a magnificent source of terminology and information about different sports in English. The planning takes a lot of time, but it feels good when you know what to do and Thomas succeeded pretty

well because he usually stuck to his lesson plans. The main accomplishments were achieved in the street basket sequence. The majority of the students learned how to play street basket, do the lay-up shot and some tactics about the game.

The class had no problems in understanding the instructions. We noticed, however, that they sometimes wanted to speak in their own mother tongue with their friends or when they asked Thomas something. This is understandable, but he always tried to answer them in English. The aim of this project was not to improve language skills, but rather to create a social non-threatening atmosphere where students could enjoy learning new PE skills through a foreign language.

We discovered that the students Thomas taught wanted a lot of feedback. This means that they wanted the teacher to be active and tell them how to improve their performance.

Thomas found it very useful to record his experiences in a diary before and after each lesson, because it made it easier to remember what he could improve from one lesson to the next. The integration of subjects has really only just started in the school system in Finland. We believe that the teachers of the future will be all-rounders to a higher degree than they are today. Even if the school system is pretty conservative, some changes will occur. Bilingual education and content-based foreign language instruction are only some of the changes that will take place.

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Place-based learning in content-based language programs

Gregory Martin Imbur

1. Introduction

As an English teacher working in Vasa övningsskola, I have been involved in two content-based language programs, where most of the pupils' learning occurs in a foreign language. Teaching Content through English (TCE) is a program offered in the elementary and junior high schools of Vasa övningsskola, while in the high school the International Baccalaureate (IB) program offers content-based learning almost entirely in English. For the last three years I have worked within these two programs, primarily as a course instructor, but also in related duties such as designing curricula, undertaking various projects, and striving to develop my own skills to teach within these programs. In the paper that follows, my primary aim is *to examine the concept of place-based learning*, especially with respect to content-based language programs.

2. Some questions regarding content-based language programs

In the following I will mention some central theoretical questions relating to content-based language programs.

First, and probably most important, consider the language learners. In light of individual strengths and weaknesses, what exactly should the language learner *learn*? What are the most efficient methods to learn content and to use language in practical settings? What is the language learner's role in a content-based language program?

When beginning to consider matters relating to the language learner, one cannot help but think of the teacher as well. What are the most effective teaching methods for content-based language programs? How much autonomy should the teacher grant the learner in a content-based language course? In what ways and to what extent, if any, should the teacher give language learners the responsibility for their own learning?

3. Place-based education

The term *place-based education* has become more common in the last decade, though the concept is far from being a new one. Indeed, as far back in time as humans have taught one another survival skills in particular places, one could say place-based education has existed. In the sense that it embraces a practical approach to everyday life, place-based education may be regarded as an original form of education, being much closer to the basic needs of our everyday living. Essentially, place-based education is about learning to live closer to the land.

Farther back in time, when everyday life necessarily took place closer to the land, people naturally learned appropriate skills and behavior. Today, however, as people generally become more mobile and their roots grow more shallow, place-based education needs to be reintegrated into most of our educational systems to honestly question new practices and, when appropriate, restore the spirit of "the old

ways". Why, for example, should industrialized nations tend to give less attention to simpler living and land-related knowledge, but more attention to highly technical fields of knowledge? If there was always "knowledge of the fields" before there were "fields of knowledge," why should we suddenly abandon those old ways which have sustained us for so long? At the very least, should we not try to temper the masses of increasingly technical information with what Leopold called a "land ethic" (Leopold, 1949)?

In relation to place-based education what exactly is the significance of the land, or *place*? In a chapter of *Ecological Literacy* entitled "Place and Pedagogy," David Orr recognizes that place has always been a nebulous concept, yet he also points out that a context for any given place immediately helps clarify the concept. "Place is defined by its human scale: a household, neighborhood, community, forty acres, one thousand acres" (Orr, 1992, p. 126). Seen in this way, place-based education varies according to each person and their relationship to a given place just as each person has individual interests and needs in language learning.

Though not necessarily focussing on a specific place, other closely relating terms and concepts of *education* include "environmental education", "experiential education", and "outdoor education". These terms are more general in their reference to education about the environment, through direct experience, or simply out of doors. Place-based education distinguishes itself in that it may incorporate the methodologies of all these educational concepts through activities relating directly to the place that the language learner inhabits. While a teacher already may do place-based activities without necessarily employing such specific terms, a value exists in identifying the place itself as an important part of the educational programs. In other words, the place where one lives becomes a vast educational resource .

In the United States, Henry David Thoreau and his time near Walden Pond represent a quintessential model of the individual and place-based education. For Thoreau, Walden was "a laboratory for observation and experimentation; a library of data about geology, history, flora, and fauna; a source of inspiration and renewal; and a

testing ground for the man." (Orr, 1992, p. 126). Thoreau was not concerned with precisely defining the context, or boundaries, of his place; instead, place for Thoreau became an area small enough to be walked around in a day yet could still be observed carefully.

By this example, Thoreau was not exactly a foreign language learner, but he was a language learner in that he fine-tuned his powers of observation and writing. Out of the language recorded in his journals, *Walden* would become the polished presentation of his place-based studies, a book that reflects Thoreau's learning and understanding.

As a multifaceted product grounded in the study of a place, Thoreau's book continues to set an example of how many dimensions of life may be unified when learning concerns a particular place. Orr puts it this way: "In contrast to the tendencies to segregate disciplines, and to segregate intellect from its surroundings, *Walden* is a model of the possible model between personhood, pedagogy, and place" (1992, p. 126). By engaging in many aspects of landscape and community, education that is place-based essentially strives to provide a wide range of opportunities for learning, development and growth, and the close alignment of education with everyday life allows for relevant examples in most learning experiences. Within a content-based language program this range of opportunities should allow for effective methods for all individuals in the process, learners and teachers alike.

Perspectives on place need not be limited to an individual learner's scale, though, and in a broader sense than one man's learning experiences, *regional education* is a concept that considers wider perspectives of community and society. At the end of the nineteenth century John Dewey (in Orr, 1992, p.127) proposed that we schools become embryonic communities with various roles and systems that reflect life in larger societies. By using society as a model for the microcosm of the school, the focus of the education returns to the place and community itself. Regional education, then, may begin in schools, classrooms, and other institutions of learning, yet it encourages extensions throughout the community.

In the 1940s the *regional survey* continued to reflect a broader concept of community and place in education. According to Lewis Mumford, it was "the backbone of a drastically revised method of study, in which every aspect of the sciences and the arts is ecologically related from the bottom up, in which they connect directly and constantly in the student's experience of his region and his community." (in Orr, 1992, p. 126). The regional survey, then, involves study of the local environment by every member of the community, from schoolchildren to specialists. As a focal point in education, the regional survey was intended to "create habits of thinking across disciplines, promote cooperation, and dissolve distinctions between facts and values, the past and future, and nature and human society." (Orr, 1992, p. 128). With such an approach to education, the community relies on all its members, creating a sense of teamwork, interdependence, and solidarity.

Finally, place-based education has been reinforced in recent decades by *bioregional education*, which encourages individuals and communities to think of place in even larger contexts. Related concepts besides *bioregion* include such terms as *watershed, airshed,* and *ecotone*, and these terms extend beyond humans and their immediate communities, considering instead the larger relationships of the land and all its forms of life. In a way, though, these larger concepts and their underlying principles help to forge bonds between human and non-human communities, as well as create a general framework for understanding the smaller orders of place-based education, mentioned above. The evolution of place-based education includes the development of increasingly lager concepts that fit individuals into larger communities and systems. Returning to the topic of content-based language programs, requires a closer look at place-based learning.

4. Place-based learning in content-based language programs

Having examined briefly the historical context of place-based education, we may consider the more specific concept of *place-based learning* in order better to understand the function of content-based

language program. Since any language learning must ultimately involve the learners themselves, it seems appropriate to reflect more specifically on the learners, especially with respect to the places they inhabit. It is, after all, the places themselves that so often help in creating connective tissue between the learning experience and the learner. That connective tissue may form on any number of levels, and usually the most visible forms of connection occur through language. Developing one's language skills through experiences in a given place, then, may help fortify the bonds between language learning and the rest of one's life.

Within TCE and IB, the content-based language programs already mentioned, the possibilities for creating learner-oriented goals allow teachers to set language learners at the center of the learning process. Both programs, for example, provide course instruction with English as the primary teaching language, yet language learners often may work individually on whatever level is most comfortable for them. In a similar way, the defined goals and curricula for these content-based language programs tend not to overspecify what should be learned, since teachers and learners themselves must decide on what level the language and learning should occur. The roles of the teachers and learners, then, are sometimes dialectical and interactive.

Both content-based language programs succeed with their more general frameworks because they allow for a variety of activities and learning outcomes. As long as teachers and learners are willing and ambitious, content-based language programs such as TCE and IB promote a certain sense of exploration, autonomy, and responsibility in the language learners. The notion of *exploration* and language learning may serve both literally and figuratively. For example, using place-related themes with arranged field trips, excursions, and other forms of exploration, teachers and learners may literally make explorations beyond the classroom, yet they may also explore a place figuratively through mere language. Directly or indirectly, these physical and linguistic explorations are both conducive to a growing sense of autonomy in the language learner.

While *autonomy* for language learners may be considered harmful in some cases, the teacher's decisions in this matter should depend largely on the age of the language learners, class size, activities and goals. The degree of autonomy, in short, should vary accordingly to the dynamics of the program, the school, the class and the individual learners themselves. One advantage to offering language learners more freedom is that they may develop their language skills according to their own strengths. This claim, of course, is based on the assumption that learners may take some of the responsibility for their own learning.

Responsibility is a word that teachers say and students hear all too often. Indeed, the word loses its value if overused, and the idea of being accountable for one's own situation sadly seems to be slipping out of many societies' value systems. Already from a relatively early age – say, junior high school at the latest – youngsters should be learning to take more responsibility, not only for their own actions, but also in a broader realm. In the context of language learning and assignments relating to place, learners would benefit from a program that fosters attention, awareness, and sensitivity to one's relationship between the individual and his or her surroundings.

With exploration, autonomy, and responsibility in mind, then the themes that follow are a few of the countless variations for a place-based learning.

5. Conclusion: A few general themes for place-based learning

As mentioned above, the themes introduced here are merely three of the innumerable approaches to studying a place. Those three themes are simply "Ecology and Place," "People and Their Relationships to a Place," and "Appreciation of Place." The essence of these themes may be found in a curriculum sourcebook entitled *A Sense of Place* (Craig et al., 1996), and I choose to borrow the sourcebook's themes for this report because these themes highlight three major directions that teachers and learners may explore while learning: understanding

processes and systems of the natural world, researching natural and human histories, and developing empathy and compassion.

The use of such themes in place-based learning often leads to exploration across traditional disciplines, and it quickly becomes apparent that place-based learning is interdisciplinary by its nature. As a result, the learning process can become exciting and fresh again, as learners ask questions and explore topics that involve more than one discipline. A similar concept to this idea of academic overlapping is the concept of an *ecotone*, which refers to a place in nature where one habitat overlaps with another, resulting in an area with extreme diversity, activity, and liveliness. Place-based themes in the curriculum of a content-based language program allows for the discovery and exploration of ecotones in the learning process. At the same time the semi-autonomous learning process becomes diverse, active, and lively once again, the more important lessons in learning about the place itself may actually occur, and real problems and issues may be treated responsibly, too.

Looking back on my past three years of teaching, I can recognize the above areas of thematic exploration in my work, especially with respect to my own experiences designing curricula, arranging learner-centered projects, and taking responsibility for my own development as a teacher. Conversely, my own experiences and development as a teacher reflect the kind of learning that these place-based themes aim to engender: learning through experiences of failure and success, improving relationships with one's own surroundings, and learning to appreciate the place where one lives. The relationship of these themes to my experiences also suggest a kind of progression – not just through trial and error while exploring these themes with pupils, but also through the consideration of content-based learning programs in particular, educational systems in general, and the value of one's own place as an essential theme in life.

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Part III

Bibliography / Recommended readings

Select bibliography on bilingual education and related matters

Mikaela Björklund & Kaj Sjöholm

The main purpose of this select bibliography is to suggest relevant readings for teachers and future researchers on 1) the fundamental theoretical frameworks on which bilingual education is based, and 2) different bilingual methods including immersion and content-based programs. Furthermore, the intention is to present short lists of relevant readings in some areas closely connected to bilingual education and research, namely: 3) assessment and language testing, 4) portfolio assessment, 5) methodological and theoretical issues concerning research in the language classroom, 6) action research, 7) material, ideas and methods in teaching, and, finally, 8) computer assisted learning – research findings and teaching material.

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